

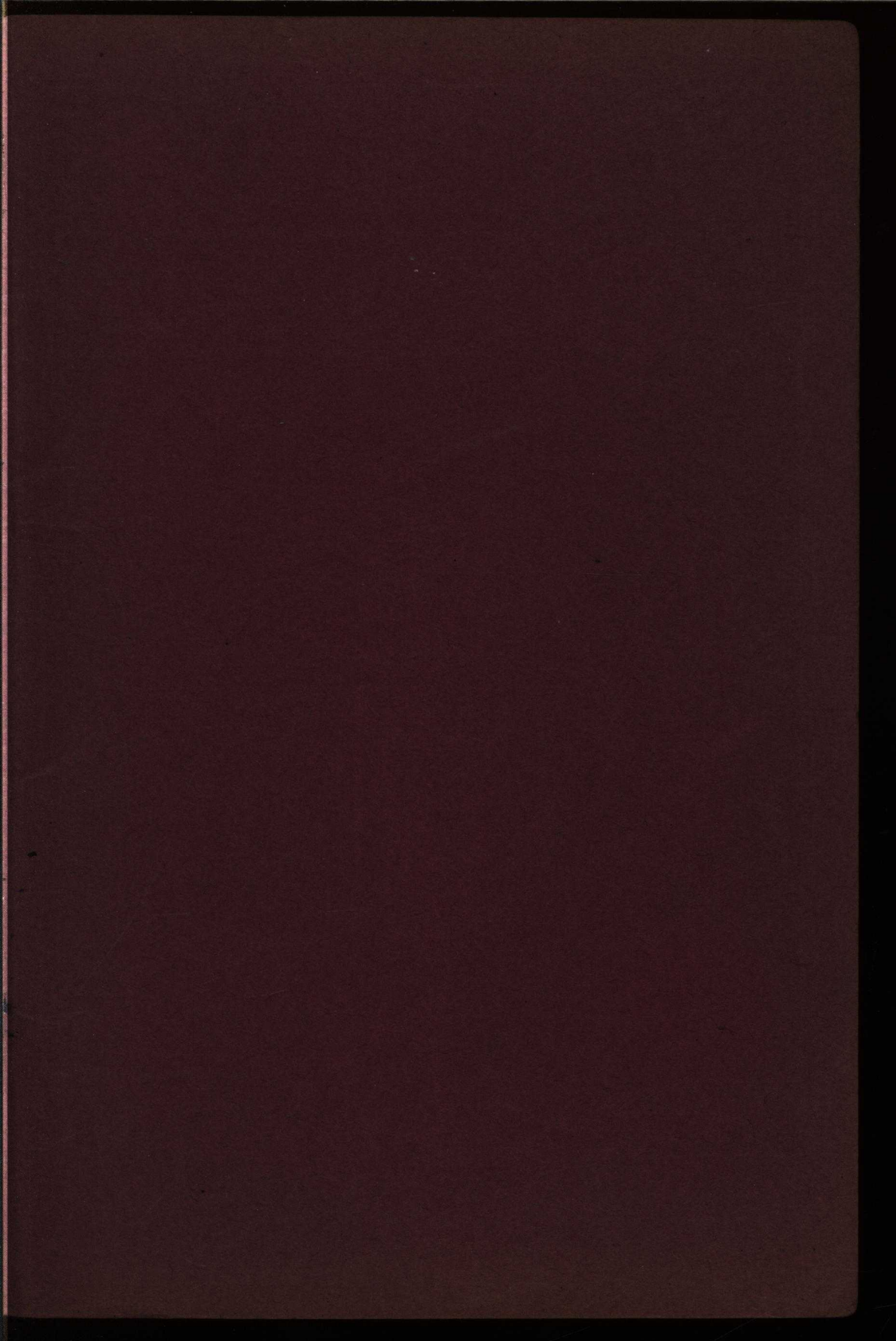
KEWANEE

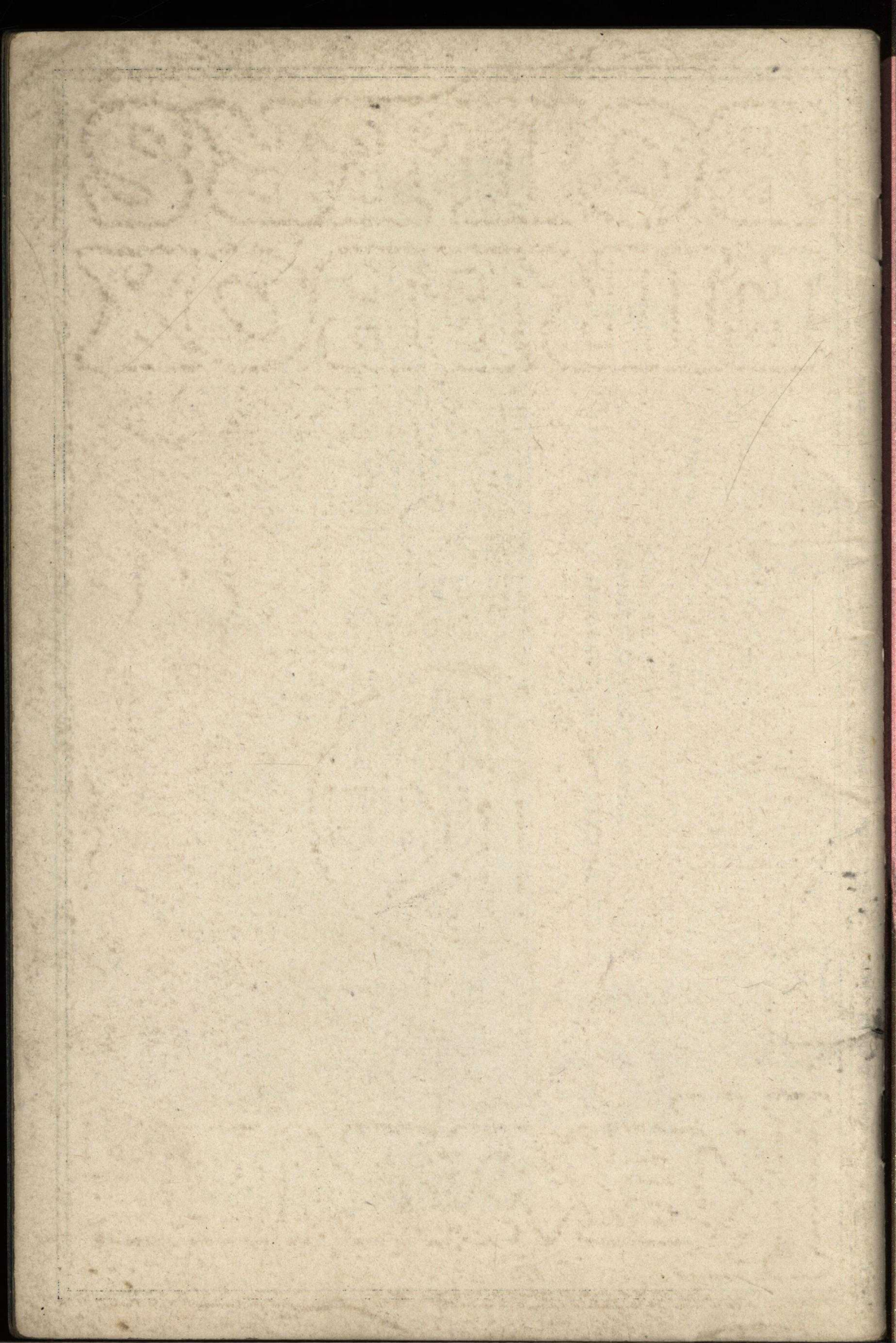
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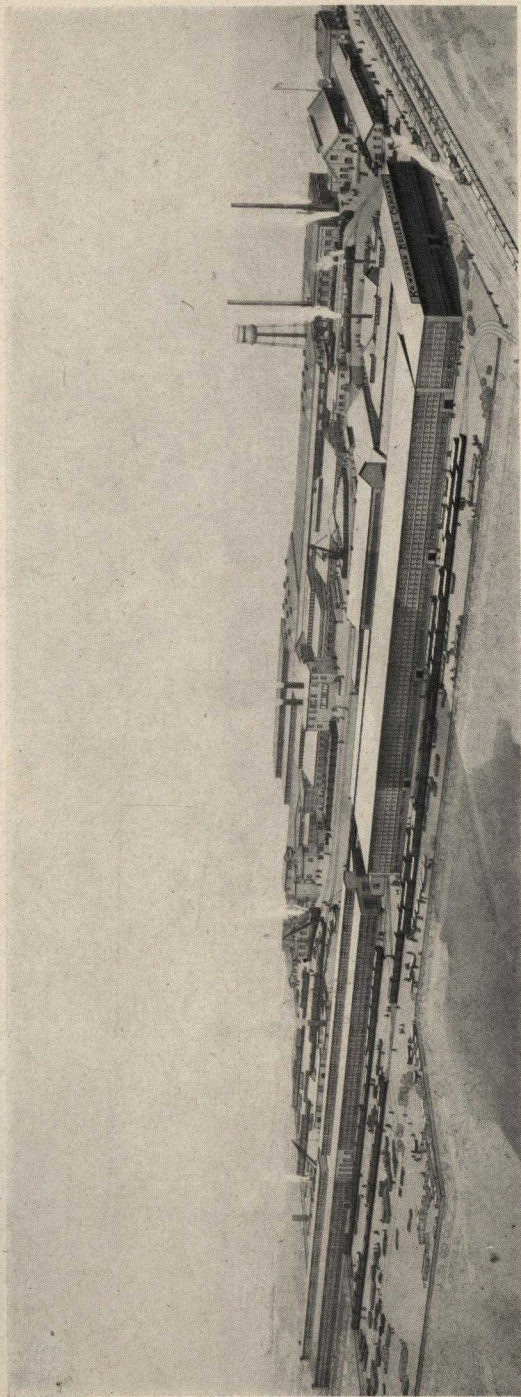


Catalog 78

FIREBOX BOILERS







THE HOME OF **KEWANEE** STEEL-RIVETED PRODUCTS
KEWANEE BOILER COMPANY
KEWANEE, ILLINOIS, U. S. A.

KEWANEE

Fire-box Boilers



Catalog No. 78

Separate Catalogs on
Kewanee Steel Water Heating Garbage Burners,
Water Heaters and Tanks, Kewanee Power Boilers
and Kewanee Radiators, Sent on Request

KEWANEE BOILER COMPANY
KEWANEE, ILLINOIS

Branches in all Principal Cities of the
U. S. and Canada (See page 4)

KEWANEE BOILER COMPANY

KEWANEE, ILLINOIS

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CANADIAN REPRESENTATIVES—The Dominion Radiator Co., Ltd.

Toronto, Ont., Montreal, Que., Winnipeg, Man., Ottawa, Ont.,

St. John, N. B., Calgary, Alta., Regina, Sask., Halifax, N. S.

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Kewanee Boiler Company, Kewanee, Illinois
Printed in the U. S. A.

All KEWANEE Boilers Are Built of Steel

KEWANEE Boilers are built of steel according to the rules of construction adopted by the American Society of Mechanical Engineers, known as the A. S. M. E. code. Every boiler bears the official stamp or symbol of the code, showing the working pressure permitted by the code together with the official stamp of the manufacturer. Seventeen states and a great number of large cities have adopted inspection laws or ordinances requiring A. S. M. E. code construction, and in anticipation of its general adoption all KEWANEE Boilers are so constructed.

In addition to the above, we have embodied in the design and construction of these boilers methods which are not only suggested by modern engineering knowledge but also by the results of thirty-five years of practical experience and study—the use of riveted joints, the staying of flat surfaces, arrangement of tubes with relation to each other and to the boiler shells allowing free circulation, together with ample steam space to insure dry steam and a steady water level; also handhole and manhole plates for cleaning and inspection. In fact every condition and advantage for the safe and economic operation of a power boiler is exemplified in this product.

Equipment

THE list price on all brick-set boilers includes Century rocking grates, fire-door and frame, ash-pit front with ash door and draft doors, the necessary soot doors, bearing plates with expansion rollers for supporting boilers upon brick pier at rear of boiler shell. Firing tools include hoe, poker, slice bar and tube scraper.

Rear flue clean-out doors are furnished with all smokeless boilers, brick-set type.

With all KEWANEE Smokeless Boilers, brick-set type, we include extra clean-out doors and frames for side or rear walls.

Back arch bars and manhole shield are furnished with all brick-set boilers. Special fire-brick tile, to fit header, is furnished with all smokeless boilers. With portable type boilers we furnish all castings for erecting the boilers as illustrated on pages 18, 19, 26, 27, 36, 37, 44 and 45, including cast-iron ash-pit base for the smaller sizes.

The trimmings for steam boilers are listed separately, consisting of water column with water gauge and three compression gauge cocks; steam gauge with syphon and cock; pop safety valve; and KEWANEE Automatic *Syphon* Draft Regulator with lever, weights, pulleys, chains, and angle valve.

No trimmings of any kind are furnished with water boilers.

Sufficient handholes are provided for cleaning purposes, and in brick-set boilers 42 inches in diameter and larger, and in portable boilers 54 inches and larger, manholes are included.

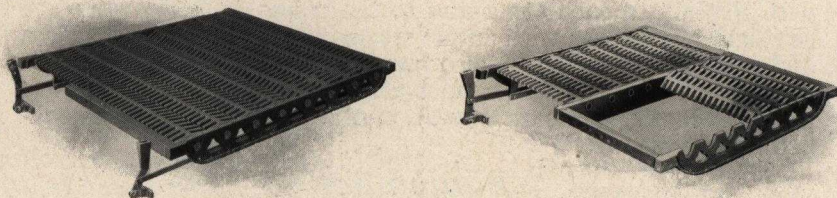
KEWANEE Boilers Are Honestly Rated

THE rated capacity of KEWANEE Boilers, as printed in this book, is the number of square feet of direct cast-iron radiating surface or equivalent which the boilers will carry, if sufficient radiation is installed to heat the building to the required temperature.

The ratings are based on a standard for steam of two pounds pressure at the boiler, and for water on a mean temperature of 180 degrees Fahrenheit as the water leaves the boiler.

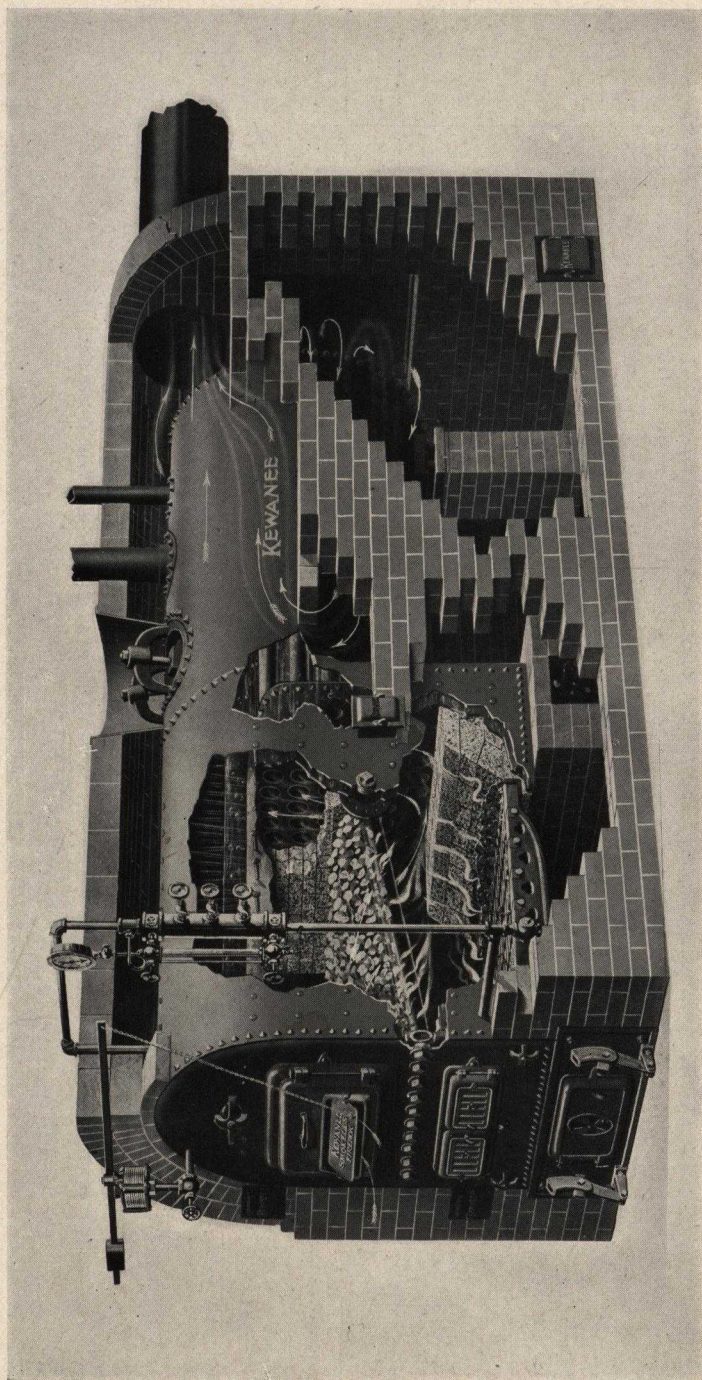
The Century Rocking Grate

THE Century Rocking Grate is furnished with all KEWANEE Boilers. It is made of the best selected iron, is heavy, strong, and durable, and has an air space of 55 percent, which renders it most efficient.



THE style of grate shown at the left is furnished with boilers sizes 12, 112, 412, 312, and smaller. In those having a fire-box longer than 38 inches, the front half of the grate operates independently of the rear half.

The two-section grate shown at the right is furnished with boilers sizes 13 and larger; sizes 113 and larger in the brick-set smokeless; sizes 413 and larger in the straight draft portable; and sizes 313 and larger in the smokeless portable. Each section is operated independently.



KEWANEE SMOKELESS BOILER — *Brick-set—for Heating*

SECTIONAL view, showing arrangement of double grates and long travel of gases. Recent tests of Kewanee Smokeless Boilers, made by a recognized boiler authority, prove that when burning soft coal, under conditions similar to those prevailing in most large buildings, their efficiency ranges from 73 to 81 percent. The ordinary type heating boiler averages about 60 per cent efficiency.

Price List **KEWANEE SMOKELESS BOILERS**—Brick-set Type These Boilers will heat all the radiation shown by their capacity

*Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Capacity, Steam . . sq. ft.	1600	2000	2300	2600	3100	3600	4000	4700	5500	6500	7500	8500	10000	11500	13000	14000	16000
Capacity, Water . . sq. ft.	2600	3300	3800	4300	5100	5900	6600	7800	9100	10700	12400	14000	16500	19000	21500	23100	26400
Code, Steam Boiler	Heal	Heap	Hear	Heck	Heed	Help	Hern	Hen	Henna	Herd	Herf	Herp	Herg	Hero	Herod	Heron	Hery
Code, Water Boiler	Hide	Hie	Hill	Hind	Hinge	Hint	Hip	Hire	Hisk	Hiss	Hit	Hitch	Hive	Hiz	Hilt	Hing	Hick
List Price for Steam Boilers Maximum Working Pres- sure of 15 Pounds; Also for Water Boilers. Cast- ings and Tools Included	\$835	\$900	\$965	\$1080	\$1155	\$1230	\$1385	\$1510	\$1635	\$1960	\$2175	\$2700	\$2920	\$3350	\$3650	\$4050	\$4350
Extra for Steam Trimmings	\$40	\$40	\$45	\$45	\$45	\$55	\$90	\$90	\$95	\$100	\$115	\$135	\$155	\$165	\$165	\$165	\$200
Approx. Weight, Pounds	4600	5100	5600	6200	6800	7300	8500	9100	9800	12500	13900	16400	18000	20400	22100	23800	25800

Openings in fire-box for coil \$4.00 list per boiler.

Prices for steam boilers for working pressure more than fifteen pounds but not exceeding one hundred pounds will be furnished upon application.

CHIMNEY CAPACITY

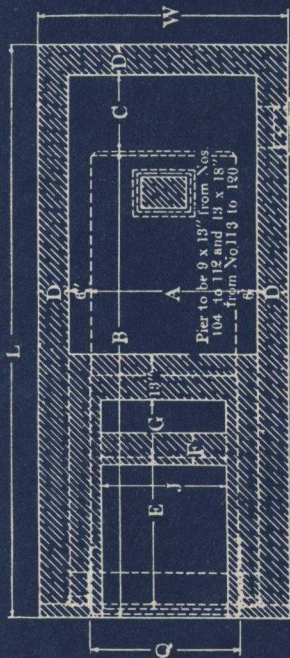
A correct chimney is absolutely necessary to a boiler. No boiler, no matter how scientifically and carefully constructed, will work properly unless the chimney is the proper size and height. We publish in tables of specifications a set of figures regarding the area and height of chimneys required with Kewanee Boilers of different capacities.

Specifications **Kewanee SMOKELESS BOILERS** — Brick-set Type

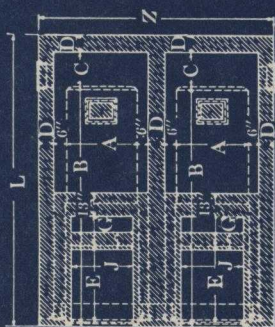
Number of Boiler	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Diameter of Boiler . . . in.	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
Length Boiler Over-all ft. in.	8-7	10-2	11-7	9-10	11-4	12-10	12-4	13-10	15-4	15-9	18-3	17-10	20-4	18-4	20-4	18-4	20-4
Width of Fire-box . . . in.	30	30	30	36	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box . . . in.	45	51	57	54	60	66	66	72	78	78	84	90	96	90	96	96	102
Heating Surface . . . sq. ft.	206	243	288	297	345	393	425	480	535	628	741	839	973	1064	1194	1291	1456
Area of Upper Grate sq. ft.	5.9	7.2	8.4	8.6	10.1	11.4	11.8	13.2	15.0	17.1	19.1	21.1	23.3	23.5	25.9	28.5	31.3
Diam. of Breeching . . . in.	20	20	22	22	22	24	24	27	27	30	30	34	34	36	36	38	38
Diam. of Stack in.	18	18	20	20	20	22	22	24	24	28	28	32	32	34	34	36	36
Minimum H'g't of Stack ft.	45	45	45	50	50	50	50	55	55	60	60	60	60	70	70	70	70
Diameter of Breeching, Two Boilers in.	26	26	28	28	30	32	32	34	34	36	38	42	42	44	45	48	50
Diameter of Stack, Two Boilers in.	24	24	26	26	28	30	30	32	32	34	36	38	38	40	42	44	46
Minimum Height of Stack, Two Boilers . . ft.	55	55	55	60	60	60	60	60	60	70	70	70	75	75	80	80	80
Size of Steam Opening . in.	5	6	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return in.	3	3	3	4	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve . . in.	2	2½	2½	2½	2½	3	3½	3½	4	4	4½	4½	Two 3½	Two 4	Two 4	Two 4	Two 4½
Height of Water-line . in.	55	55	55	58½	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
Height from Floor to Top of Brickwork . . in.	77	77	77	83	83	83	90	90	90	96	96	108	108	114	114	120	120

For setting plans and other measurements see pages 10 and 11.

Every Kewanee Boiler made is built of steel.



Foundation Plan at XX



Double Setting Foundation Plan at XX

Number of Boiler	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
A—Diameter Boiler	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
B—Length Boiler	8-7	10-1	11-7	9-10	11-4	12-10	12-4	13-10	15-4	15-9	18-3	17-10	20-4	18-4	20-4	18-4	20-4
C—Rear Space	17	9	17	22	22	22	9	9	9	24	24	24	24	24	24	28	28
D—Thickness Wall	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
E—Length Grate	31	37	43	37	43	49	43	49	55	55	61	61	67	67	67	73	73
F—Width Ash-pit	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
G—Thickness Bridge Wall	9	9	9	9	9	9	9	9	9	18	18	18	18	18	18	18	18
H—Grate to Tube Sheet	14	14	14	17	17	17	23	23	23	23	23	29	29	29	29	29	29
I—Header to Bridge Wall	7	8	9	9	10	12	10	11	12½	13	14	14	15½	15½	15½	16	17
J—Height Brickwork	77	77	77	83	83	83	90	90	90	96	96	108	108	114	114	120	120
K—Location Steam Supply	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
L—Length Over-all	10-9	12-3	13-9	12-5	13-11	15-5	14-11	16-5	17-11	18-10	21-4	20-11	23-5	21-5	23-5	21-9	23-9
M—Height Water-line	55	55	55	58½	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
N—Height Side Flue	36	36	36	39	39	39	42	42	42	48	48	51	51	58	58	63	63
O—Diam. Breaching Conn.	20	20	22	22	22	24	24	27	27	30	30	34	34	36	36	38	38
R—Height Brick Shelf	47	47	47	50	50	50	53	53	53	56	56	63	63	66	66	69	69
S—Top Flue Space	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
T—Length Brick Shelf	36	42	54	36	48	60	54	66	80	84	102	90	108	90	108	84	102
V—Length of Arch	5-3	6-3	7-3	7-0	7-6	8-0	8-1	8-11	9-9	10-0	10-6	10-10	12-0	11-0	12-0	11-1	12-1
W—Width Over-all	5-6	5-6	5-6	6-0	6-0	6-0	6-6	6-6	6-6	7-8	7-8	8-2	8-2	8-8	8-8	9-2	9-2
Z—Width Double Setting	10-3	10-3	10-3	11-3	11-3	11-3	12-3	12-3	12-3	14-3	14-3	15-3	15-3	16-3	16-3	17-3	17-3
*Number Common Brick	2200	2350	2450	2600	2850	3100	3700	4000	4300	6000	6600	7350	7900	7800	8300	8700	9300
Number Fire Brick	85	85	85	100	100	100	130	130	130	155	155	215	215	250	250	310	310
*Common Brick for Two Boilers	3900	4100	4300	4500	4950	5350	6500	7000	7550	10500	11500	12750	13700	13200	14200	15000	16000

*Foundations not included.

Key letters N and V apply only to boiler settings with breaching connection at front. Key letters R and T apply only to boiler settings with breaching connection at rear.

For anchor bolt centers for ash-pit front, letters P and Q, see pages 16 and 17.

KEWANEE BOILERS

Brick-set Type

AFTER thirty-five continuous years of steel boiler building, KEWANEE Fire-box Boilers are universally recognized as the standard fire-box boilers for low pressure heating purposes. During these years of successful building of steel boilers, building owners, architects and heating contractors are realizing that KEWANEE is the most dependable boiler built for apartments, hotels, club-houses, schools, industrial buildings, in fact, any type of building where a heating boiler must be ready to give service whenever it is called upon.

The KEWANEE Smokeless Boiler is designed and constructed to efficiently burn any kind of coal. Thousands of these boilers are operating and have been for years, being fired with the very poorest grades of coal and causing no smoke whatever. The many splendid installations are proof of the durability of the KEWANEE Smokeless Boiler and the increasing demand we believe is further proof of its ability to burn any kind of coal without causing smoke, and maintain the highest possible heating efficiency.

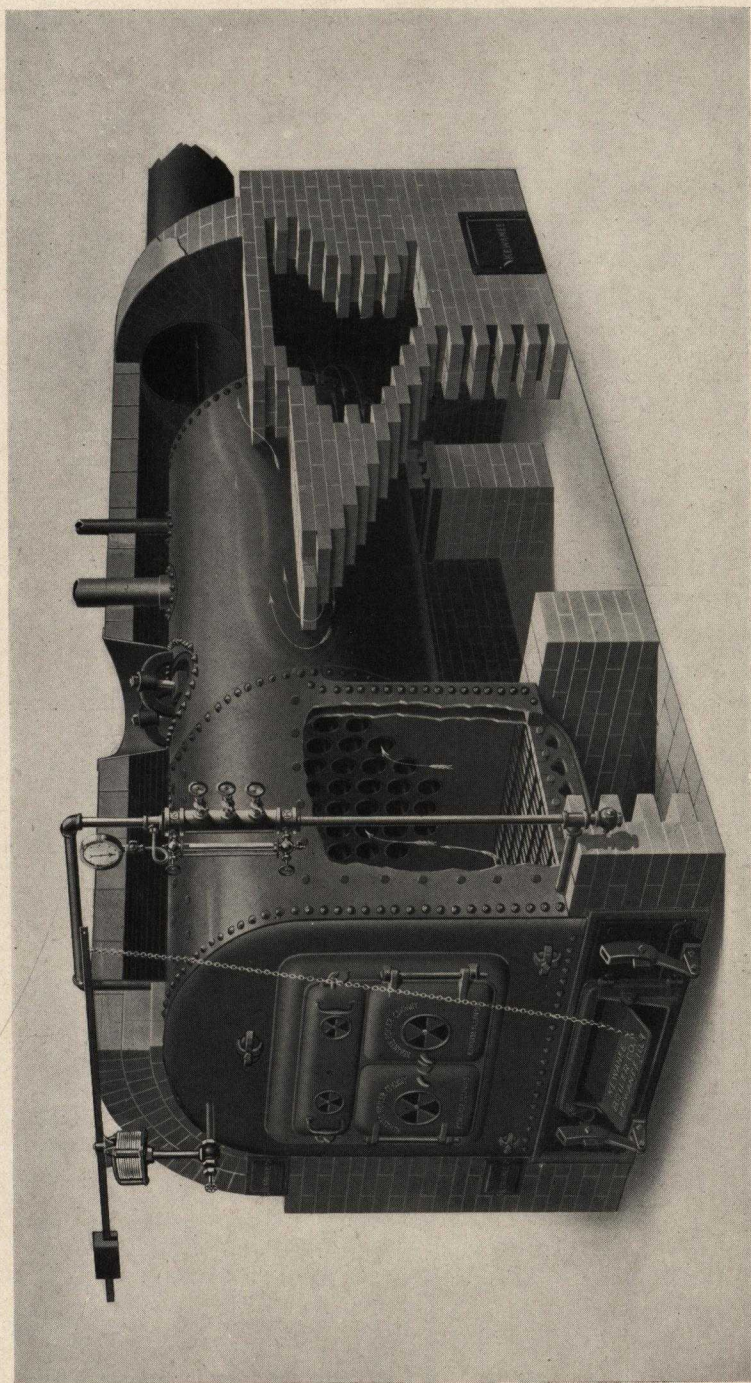
The Straight Draft Boiler has proven to be exceptionally long-lived, as many of the first which were built thirty-five years ago are still in operation and giving good service.

Ample Heating Surface

THE heating surface of a KEWANEE Boiler is that portion of the boiler containing water, against which the fire and gases come in contact. This includes the fire-box of the boiler—which is surrounded by water; the tubes; and the outside surface of the cylinder or shell, below the water-line. So KEWANEE Boilers are practically all heating surface.

High Fire-Boxes

PRODUCTS of combustion require room for expansion. KEWANEE Fire-box Boilers have high fire-boxes which allow for the proper burning of the gases.



KEWANEE BOILER
Brick-set—for Heating

Price List KEWANEE BOILERS—Brick-set Type
 Built in accordance with American Society
 Mechanical Engineers Code of Boiler Rules
 These Boilers will heat all the radiation shown by their capacity

Number of Boiler	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Capacity, Steam sq. ft.	900	1050	1200	1400	1700	2000	2600	3000	3500	4000	4500	5500	6500	7500	8700	10000	11000	12000	14000
Capacity, Water sq. ft.	1500	1700	2000	2300	2800	3300	4300	5000	5800	6600	7400	9100	10700	12400	14400	16500	18200	19800	23100
Code, Steam Boiler	Dagon	Draft	Daub	Dawn	Dairy	Damp	Dash	Data	Dated	Dead	Dear	Debut	Defer	Devil	Deist	Delve	Demit	Dense	Dart
Code, Water Boiler	Dirty	Peter	Dingy	Durge	Barn	Debar	Drill	Draft	Dregs	Drink	Debit	Decay	Dusk	Deot	Deery	Deflux	Delta	Deimon	Denial
List Price for Steam Boilers Maximum Working Pressure of 15 Pounds; also for Water Boilers, Castings and Tools Included	\$445	\$500	\$555	\$610	\$665	\$720	\$900	\$980	\$1050	\$1150	\$1250	\$1570	\$1760	\$2200	\$2425	\$2750	\$3100	\$3400	\$3700
Extra for Steam Trimmings	\$35	\$35	\$35	\$35	\$35	\$40	\$40	\$50	\$50	\$80	\$80	\$95	\$95	\$125	\$125	\$150	\$160	\$160	\$160
Rear Flue Clean-out Doors and Frame	\$18	\$18	\$18	\$22	\$22	\$22	\$26	\$26	\$32	\$32	\$32	\$38	\$38	\$46	\$46	\$60	\$60	\$70	\$70
Approximate Weight, Pounds	2400	2700	2900	3300	3700	4200	5400	6000	6700	7300	8000	10600	11900	14400	16000	17800	19100	21700	23500

Openings in fire-box for coil \$4.00 list per boiler.

Prices for steam boilers for working pressure more than fifteen pounds but not exceeding one hundred pounds will be furnished upon application.

Kewanee Boilers can be found heating the best of buildings from New York to San Francisco and from Montreal as far south as heat is required.

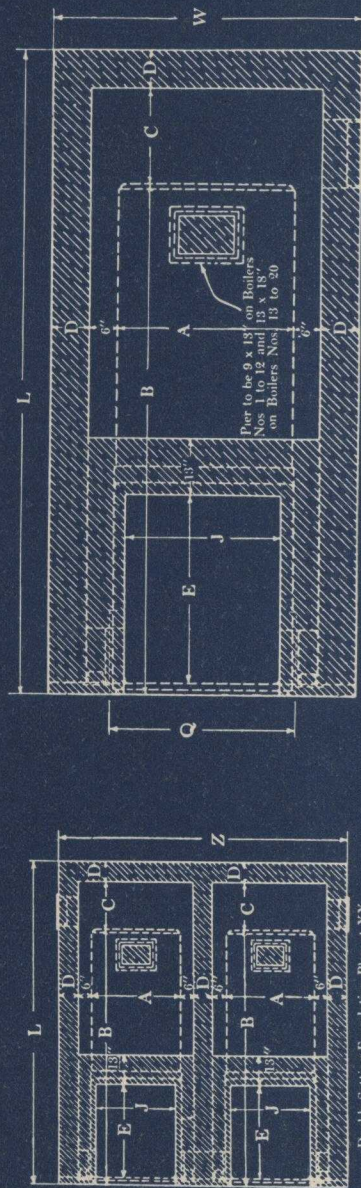
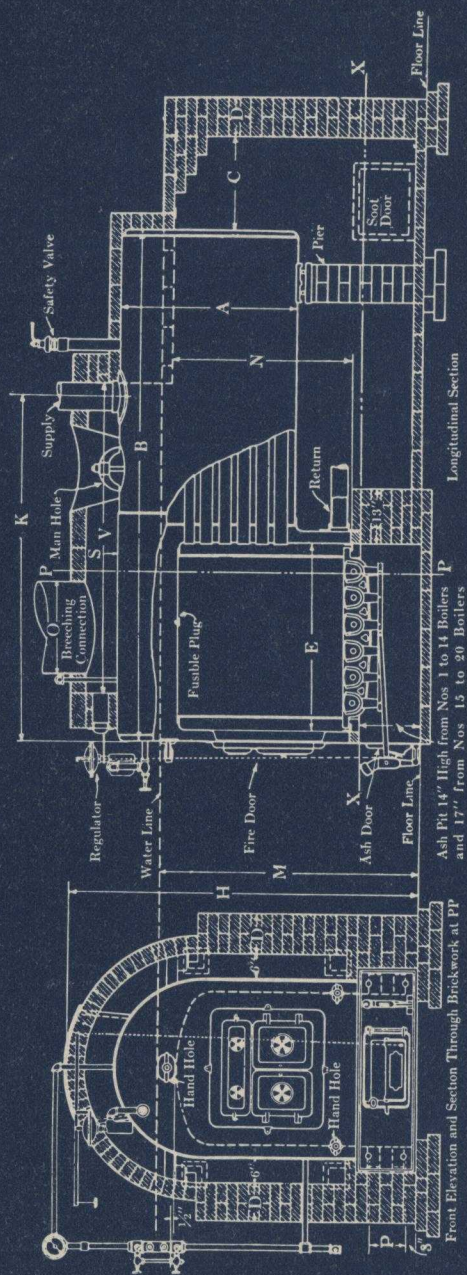
Specifications **Kewanee Boilers**—Brick-set Type

Number of Boiler	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Diameter of Boiler	30 6½	30 7½	30 8½	36 7½	36 9	36 10½	42 10	42 11½	48 10½	48 12	48 13½	54 14	54 16½	60 15½	60 18	66 16	66 18	72 16	72 18
Length of Boiler Over-all	in.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.
Width of Fire-box	24	24	24	30	30	30	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box	26	32	38	32	38	44	44	50	44	50	56	56	62	62	68	62	68	68	74
Height of Fire-box	35	35	35	38	38	38	41	41	44	44	44	49	49	54	54	59	59	64	64
Heating Surface	113	131	147	180	215	250	305	350	368	420	472	560	673	743	873	954	1080	1167	1329
Area of Grate	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.
Diameter of Breeching	12	14	16	16	18	18	20	22	22	24	24	28	28	32	32	32	32	36	36
Diameter of Stack	12	12	14	14	16	16	18	20	20	22	22	26	26	30	30	30	30	34	34
Minimum Height of Stack	40	40	40	40	40	45	45	45	45	50	50	50	50	55	55	60	60	60	60
Diameter of Breeching, Two Boilers	18	20	22	22	24	24	28	32	32	32	34	36	36	40	40	40	42	44	46
Diameter of Stack, Two Boilers	18	18	20	20	22	22	26	28	28	30	32	34	34	36	36	36	38	40	42
Minimum Height of Stack, Two Boilers	45	45	45	45	45	45	50	50	50	50	50	55	60	60	70	70	70	70	70
Size of Steam Opening	4	4	5	5	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return	2½	2½	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve	1½	2	2	2	2	2½	2½	3	3	3½	3½	4	4	4½	4½	4½	4	4	4
Height of Water-line	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Height from Floor to Top of Brick Work	70	70	70	77	77	77	83	83	90	90	90	96	96	108	108	114	114	120	120

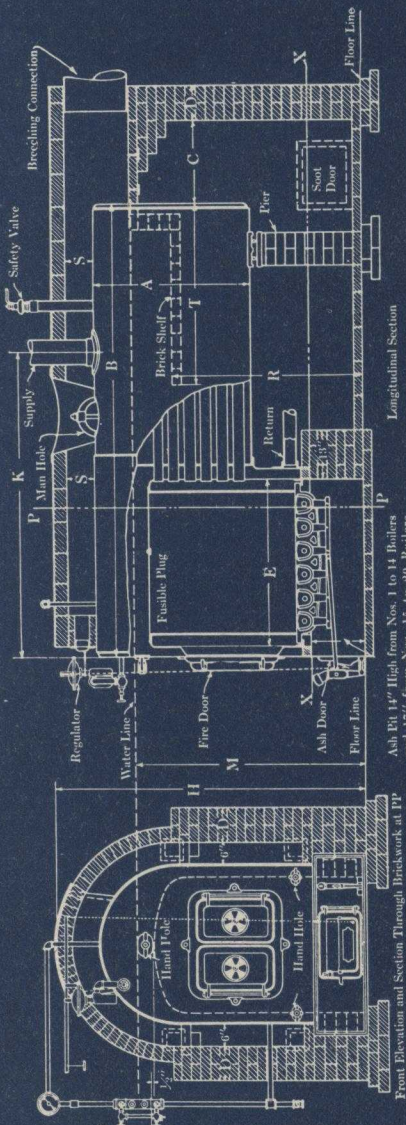
For setting plans and other measurements see pages 16 and 17.

Many of the first Kewanee Boilers made are still on the job—35 years old.

Section **KEWANEE BOILER**—Brick-set—Showing Setting with Stack Connection at Front



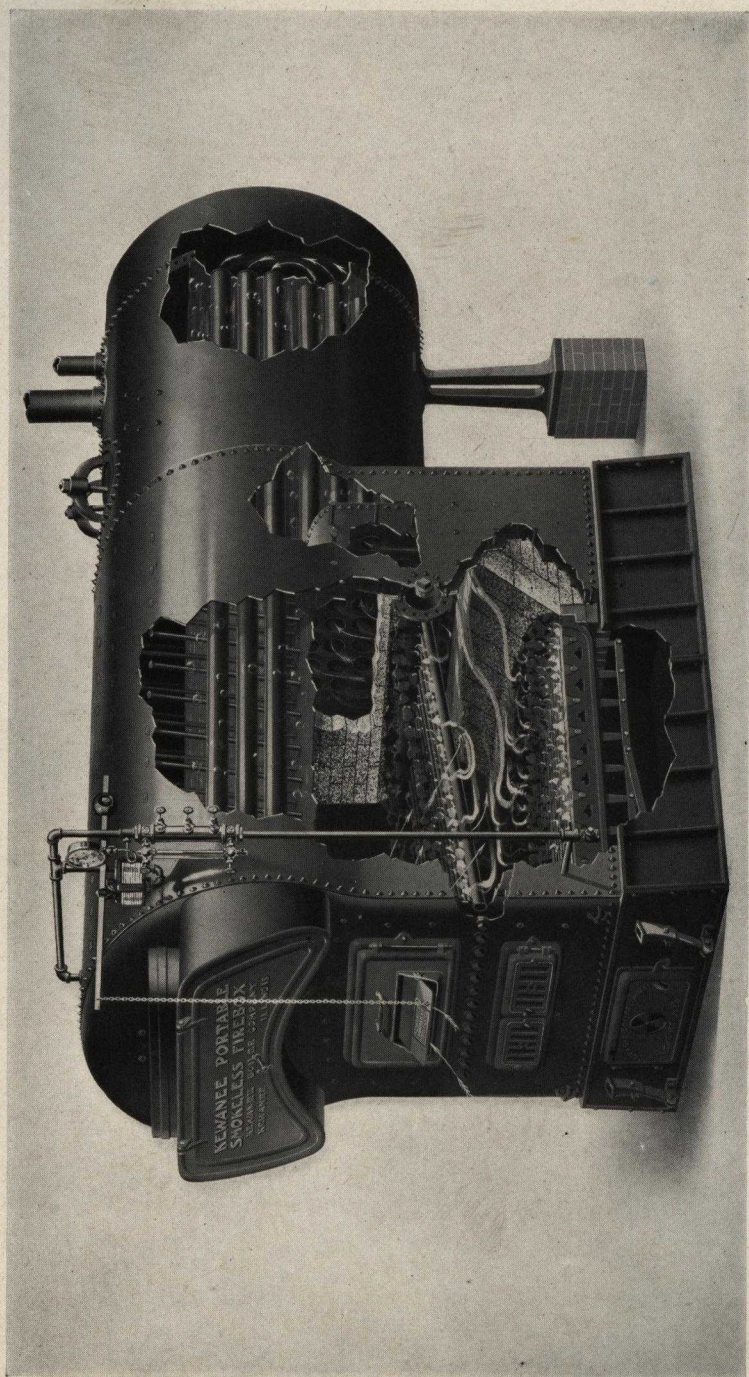
Section KEWANEEL BOILER—Brick-set—Showing Setting with Stack Connection at Rear



Front Elevation and Section Through Brickwork at PP
Ash Pit 14" High from Nos. 1 to 14 Boilers
and 17" from Nos. 15 to 30 Boilers

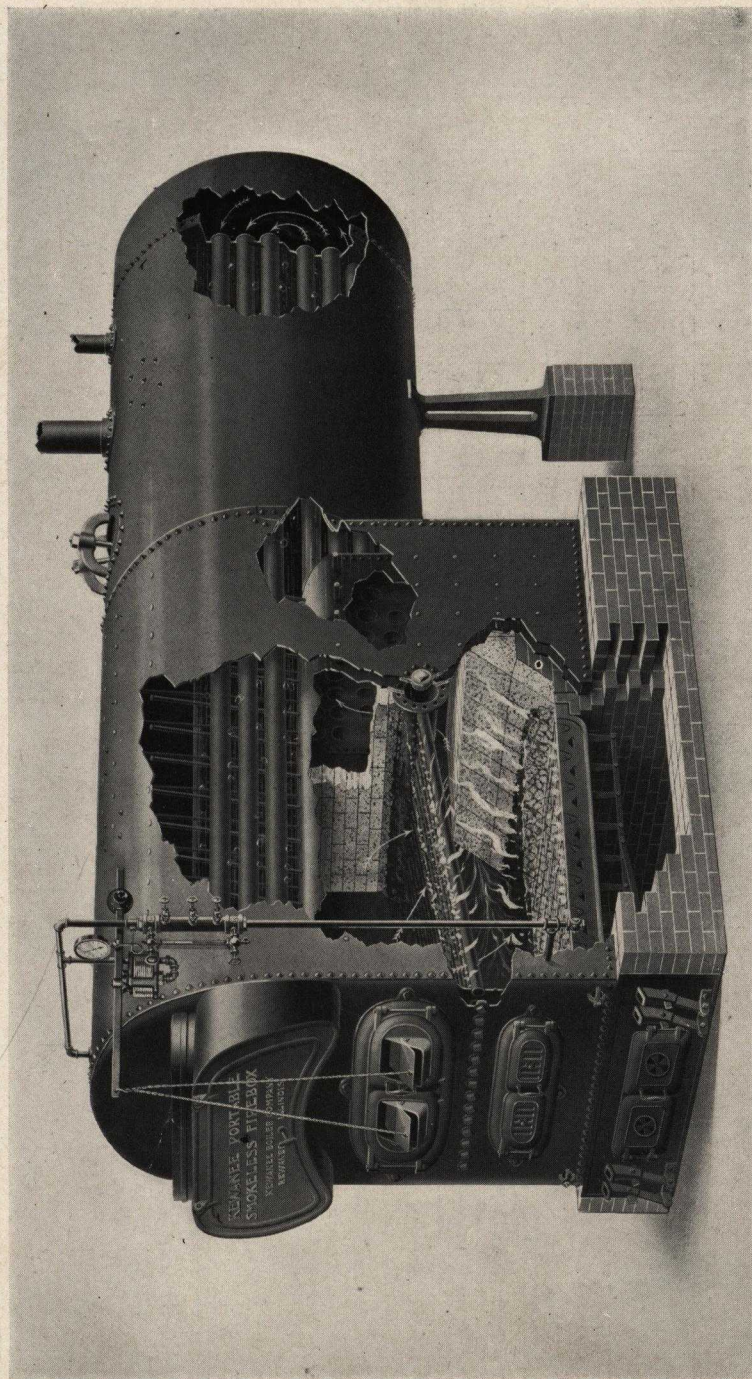
Number of Boiler	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
A—Diameter of Boiler	30	30	30	36	36	36	42	42	48	48	48	54	54	60	60	66	66	72	72
B—Length of Boiler	6-5	7-6	8-6	7-6	9-0	10-6	10-6	11-6	10-6	12-0	13-6	13-11	16-5	15-6	18-0	18-0	18-0	16-0	18-0
C—Rear Space	17	17	17	17	17	17	22	22	22	22	22	24	24	24	24	24	24	28	28
D—Thickness Wall	9	9	9	9	9	9	9	9	9	9	9	13	13	13	13	13	13	13	13
E—Length Grate	26	32	38	32	38	44	44	50	44	50	56	56	62	62	68	68	68	68	74
F—Width Ash-pit	25	25	25	31	31	31	37	37	43	43	43	49	49	54	54	60	60	66	66
G—Total Height	70	70	70	77	77	77	83	83	90	90	90	96	96	108	108	114	114	120	120
H—Location of Supply	4-0	4-8	5-6	4-11	5-11	6-11	6-8	7-2	7-0	7-10	8-6	9-2	9-8	9-8	10-8	10-8	10-8	9-9	10-9
I—Height of Water-line	52	52	52	55	55	55	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
J—Height of Side Flue	2-8	2-8	2-8	3-0	3-0	3-0	3-3	3-3	3-6	3-6	3-6	4-0	4-0	4-3	4-3	4-10	4-10	5-3	5-3
K—Height Breaching Connection	12	14	16	16	18	18	20	22	22	22	23	28	28	32	32	32	32	36	36
L—Height Brick Shelf	44	44	44	47	47	47	50	50	53	53	53	56	56	63	63	66	66	69	69
M—Top Flue Space	6	6	6	7	7	7	7	7	8	8	8	8	8	10	10	10	10	10	10
N—Length Brick Shelf	30	36	44	36	42	54	48	60	53	66	80	84	102	90	108	90	108	84	102
O—Length of Arch	3-2	3-10	4-9	4-1	5-1	6-1	6-3	6-9	6-3	7-3	7-9	8-1	8-7	8-5	9-1	8-7	9-8	8-9	9-9
P—Anchor Bolt Centers for Ash-pit Front	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Q—Anchor Bolt Centers for Ash-pit Front	30	30	30	36	36	36	42	42	48	48	48	54	54	60	60	66	66	72	72
R—Total Length	8-7	9-8	10-8	9-8	11-2	12-8	12-7	14-1	13-1	14-7	16-1	17-0	19-6	18-7	21-1	19-1	21-1	19-5	21-5
S—Total Width	5-0	5-0	5-0	5-6	5-6	5-6	6-0	6-0	6-6	6-6	6-6	7-8	7-8	8-2	8-2	8-8	8-8	9-2	9-2
T—Width Double Setting	9-3	9-3	9-3	10-3	10-3	10-3	11-3	11-3	12-3	12-3	12-3	14-3	14-3	15-3	15-3	16-3	16-3	17-3	17-3
U—Number of Common Brick	1450	1600	1750	1900	2150	2400	2650	2900	3000	3300	3600	5300	5900	6500	7200	7200	7700	8200	8200
*Common Brick for Two Boilers	2450	2700	2950	3300	3750	4100	4750	5350	5400	5900	6450	8350	10350	11350	12550	12400	13450	13250	13850

*Foundations not included.
Key letters N and V apply only to boiler settings with breaching connection at front as shown on page 16.
Key letters R and T apply only to boiler settings with breaching connection at rear as shown on page 17.



**KEWANEE SMOKELESS
Boiler—Portable—for Heating**

BOILER No. 314 (and smaller) constructed with enlarged cylinder as above. Iron ash-pit (as illustrated) furnished with Boiler No. 309 (and smaller). Actual installations have proved conclusively that Kewanee Smokeless Boilers cut coal costs from 21 to 35 percent.



**KEWANEE SMOKELESS
Boiler**—*Portable—for Heating*

BOILER NO. 315 (and larger) constructed as shown above. Boiler No. 310 (and larger) set on brick foundation as illustrated.

Price List **KEWANEE SMOKELESS BOILERS** — Portable Type These Boilers will heat all the radiation shown by their capacity

*Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324
Capacity, Steam	3000	3500	4000	4500	5000	5500	6000	6500	7500	8500	10000	12000	14000	16000	18000	20000	25000	30000
Capacity, Water	5000	5800	6600	7400	8300	9100	9900	10700	12400	14000	16500	19800	23100	26400	29700	33000	40000	48000
Code, Steam Boiler	Panel	Panic	Pansy	Papa	Paper	Parch	Pail	Parcel	Pardon	Park	Parole	Party	Pastry	Patrol	Pawn	Pay	Pause	Pave
Code, Water Boiler	Pelt	Penal	Pencil	Pen	Pepsin	Perch	Perfect	Peril	Period	Perish	Permit	Persue	Person	Peruse	Petal	Pestle	Petty	Pewter
List Price for Steam Boilers Maximum Working Pressure of 15 Pounds; Also for Water Boiler, Castings and Tools Included	\$1410	\$1530	\$1650	\$1850	\$1965	\$2080	\$2520	\$2730	\$3070	\$3270	\$3850	\$4080	\$4500	\$4800	\$5450	\$5800	\$7400	\$8400
Extra for Steam Trimmings	\$55	\$55	\$90	\$95	\$95	\$100	\$110	\$110	\$130	\$130	\$160	\$170	\$170	\$200	\$225	\$225	\$235	\$235
Approximate Weight, Pounds	7800	8600	9300	10400	11100	11900	14500	15300	16900	17800	20900	22900	25000	26500	28800	30000	37000	43000

Openings in fire-box for coil \$4.00 list per boiler.

Prices for steam boilers for working pressure more than fifteen pounds but not exceeding one hundred pounds will be furnished upon application.

*Scientific tests, as well as actual installations, have proved conclusively
that Kewanee Smokeless Boilers get from 21 to 35 percent more heat
from the same amount of soft coal than ordinary boilers.*

#312 Boiler at Debalivere

*Build in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Specifications **Kewanee SMOKELESS BOILERS**—Portable Type

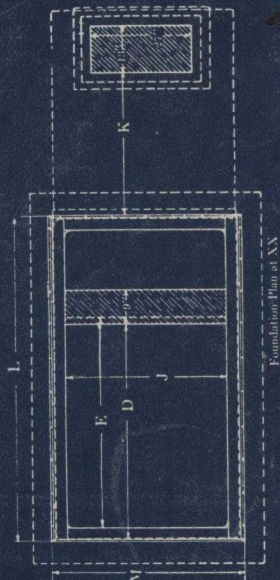
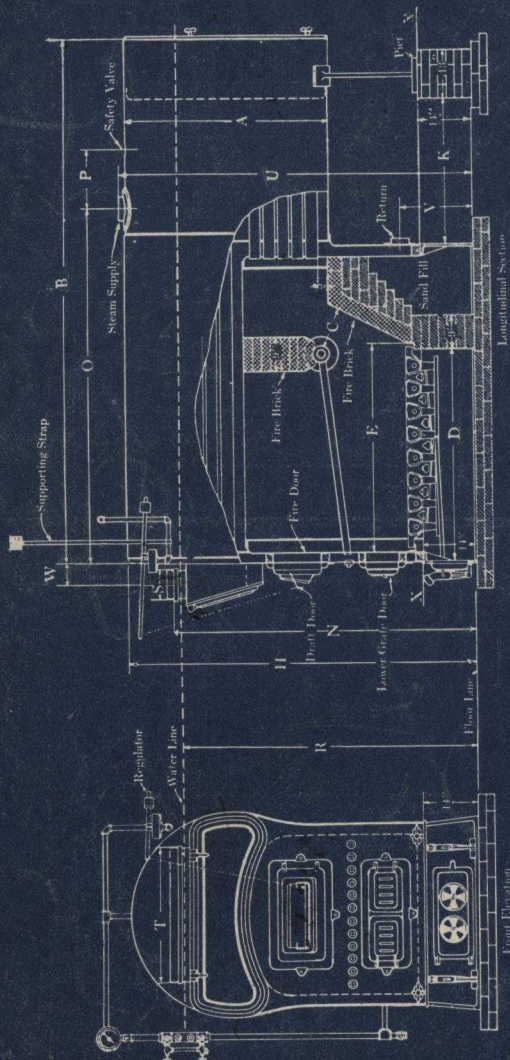
Number of Boiler	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324
Diameter of Boiler	48	48	48	54	54	54	60	60	60	60	66	66	72	72	78	78	84	84
Length of Boiler Over-all	9-1	10-5	11-5	10-11	11-11	12-11	12-11	13-11	15-3	16-3	15-9	17-9	16-7	17-11	17-10	18-10	20-1	24-1
Width of Fire-box	36	36	36	42	42	42	48	48	53	53	59	59	65	65	71	71	77	77
Length of Fire-box	54	60	66	72	78	84	78	84	90	96	90	96	96	102	102	108	114	120
Heating Surface	297	352	391	446	496	546	592	643	721	773	912	1053	1204	1316	1458	1549	2074	2629
Area of Upper Grate	8.8	10.1	11.4	12.9	14.7	16.5	17.1	18.5	20.0	21.4	23.5	25.9	28.5	29.9	32.6	34.6	41.7	44.8
Diameter of Breeching	22	22	22	24	24	24	26	26	28	28	30	32	34	34	36	36	40	42
Diameter of Stack	20	20	20	22	22	22	24	24	26	26	28	30	32	32	34	34	38	40
Minimum Height of Stack	50	55	55	55	55	60	60	60	65	65	65	70	70	70	80	90	90	100
Diameter of Breeching, Two Boilers	30	30	30	34	34	34	38	38	40	40	44	46	50	50	52	52	56	56
Diameter of Stack, Two Boilers	28	28	28	31	31	31	34	34	36	36	40	42	46	46	48	48	54	54
Minimum Height of Stack, Two Boilers	60	65	65	65	65	70	70	70	75	75	75	80	80	80	90	100	100	110
Size of Steam Opening	6	6	6	6	6	6	7	7	7	7	8	8	8	8	8	8	10	10
Size of Return	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve	3	3	3 1/2	3 1/2	3 1/2	4	4	4	4 1/2	4 1/2	Two	Two	Two	Two	Three	Three	Four	Four
Height of Water-line	71	71	71	76	76	76	83	83	87	87	90	90	96	96	97	97	105	105
Height Floor to Top of Shell	84	84	84	89	89	89	98	98	101	101	107	107	113	113	115	115	121	121
Distance Required to Open Rear Flue Doors	26	26	26	28	28	28	32	32	32	32	35	35	37	37	40	40	43	43

For setting plans and other measurements see pages 22, 23, 24 and 25.

Kewanee Boilers never crack, for they are built of steel.

Kindell 3906

Salway



Section **KEWANEE SMOKELESS BOILER** Showing Portable Type Setting Plan

Note: Boilers Nos. 310, 311, 312, 313, and 314 are constructed with bell top as shown above, but are set on brick foundation instead of cast iron base as shown.

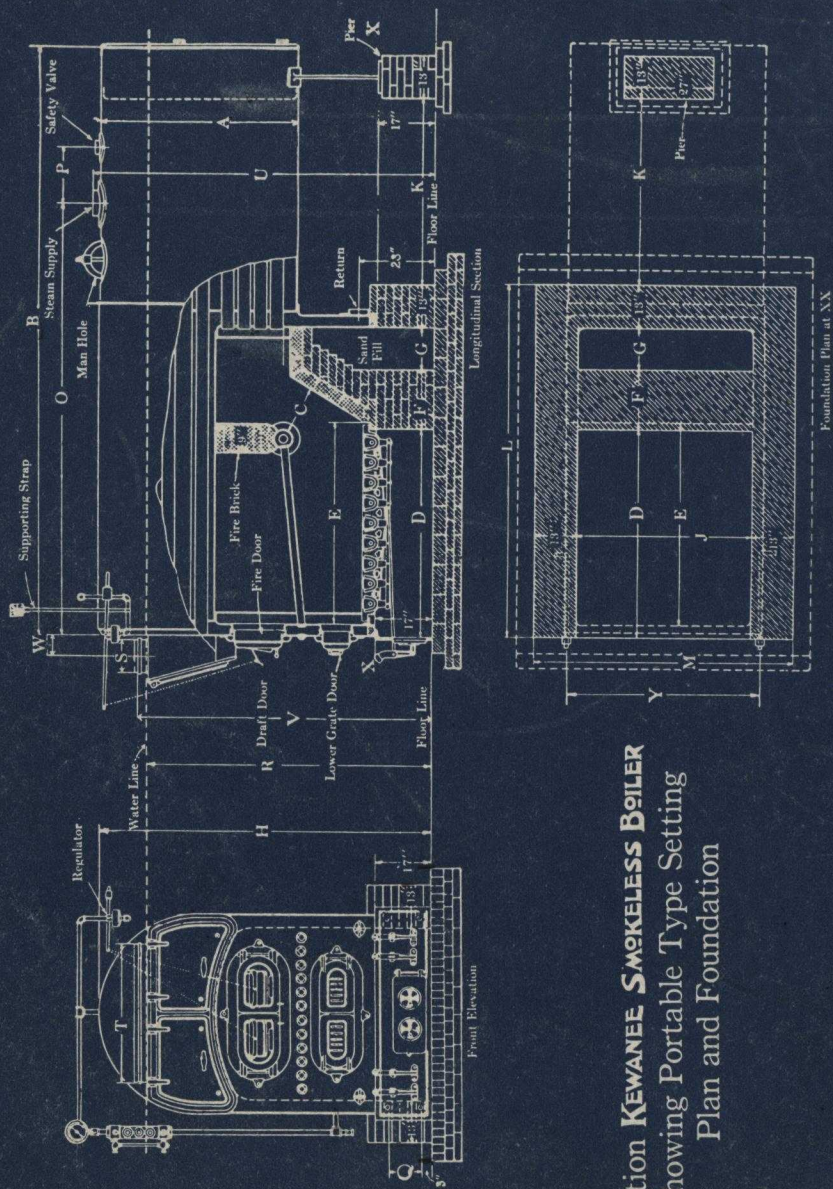
Setting Measurements **Kewanee Smokeless Boiler**—Portable Type

Number of Boiler	307	308	309 [†]	310	311	312	313	314
A—Diameter Boiler	48	48	48	54	54	54	60	60
B—Length Boiler	9-1	10-5	11-5	10-11	11-11	12-11	12-11	13-11
E—Length Grate	37	43	49	49	55	61	55	61
C—Header to Bridge Wall	9	10	11½	11	12½	14	12½	14
D—Length Ash-pit	38	44	50	50	56	62	56	62
F—Thickness Bridge Wall	9	9	9	13	13	13	13	13
G—Bridge Wall to Rear Wall	29	39	45	12	12	12	12	12
K—Ash-pit to Pier								
K—Rear Wall to Pier				27	33	39	45	51
J—Width Ash-pit	37	37	37	43	43	43	49	49
M—Width Foundation	46	46	46	60	60	60	66	66
L—Length Base	61	67	73	84	90	96	90	96
H—Height Boiler	84	84	84	89	89	89	98	98
U—Height Supply	85	85	85	90	90	90	99	99
V—Height of Return	19	19	19	19	19	19	20	20
R—Height Water-line	71	71	71	76	76	76	83	83
N—Height of Breaching Connection	76	76	76	80	80	80	88	88
O—Location Supply	5-11	6-8	7-3	7-6	8-2	8-9	8-9	9-3
P—Location Safety Valve	12	14	14	13	13	15	15	18
Q—Anchor Bolt Centers for Ash-pit Front				8	8	8	8	8
W—Center Breaching Connection to Front of Boiler	8	8	8	8	8	8	9½	9½
S—Width Breaching Connection	10	10	10	10	10	10	12½	12½
T—Length Breaching Connection	36	36	36	42	42	42	46	46
Y—Anchor Bolt Centers for Ash-pit Front				48	48	48	54	54
*Number Common Brick	200	200	200	800	825	850	1025	1050
Number Fire-brick	115	115	115	155	155	155	195	195
Outside Surface to be Covered	148	157	173	184	212	221	255	265

*Foundations not included.

†For key letters F and G, Q and Y see setting plan on page 24.

Kewanee Smokeless Boilers will burn any grade of soft coal smokelessly.

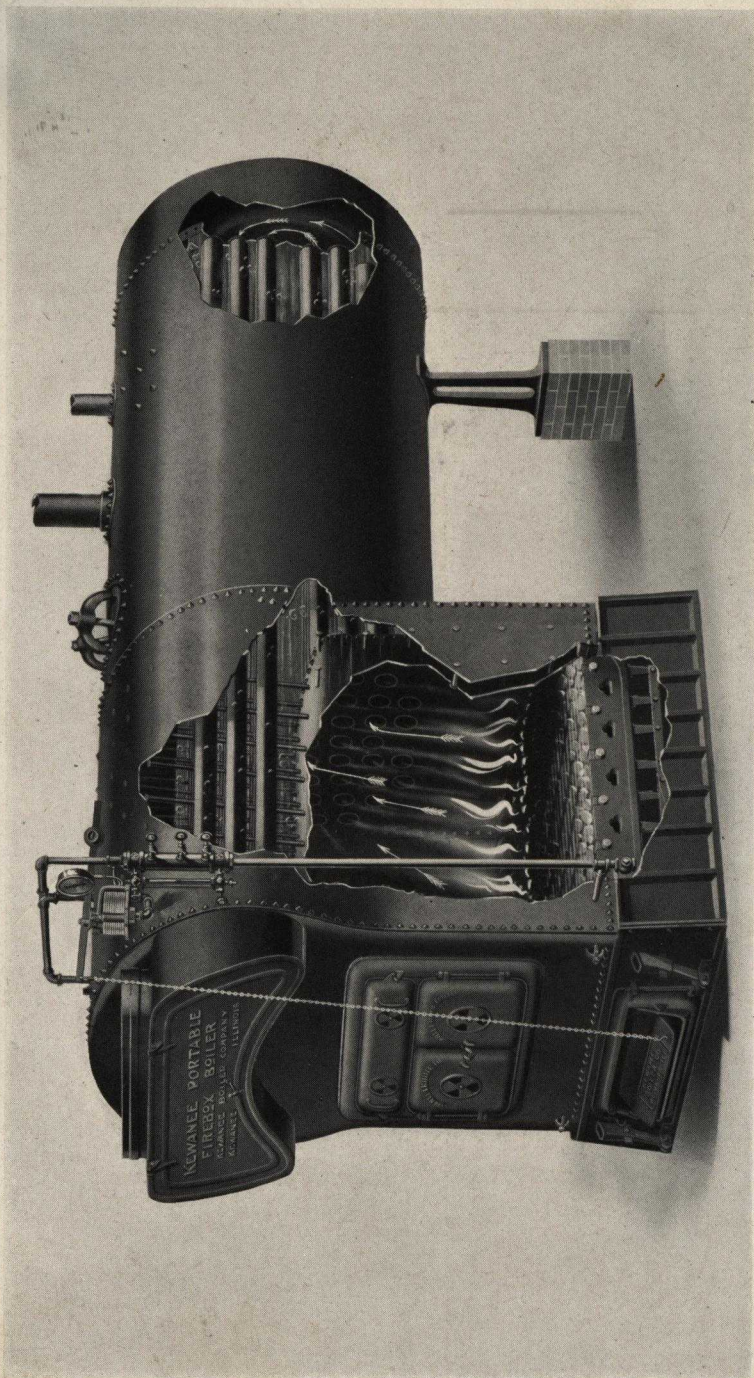


Section **KEWANEE SMOKELESS BOILER**
 Showing Portable Type Setting
 Plan and Foundation

Setting and Foundation Measurements **Kewanee Smokeless Boiler**—Portable Type

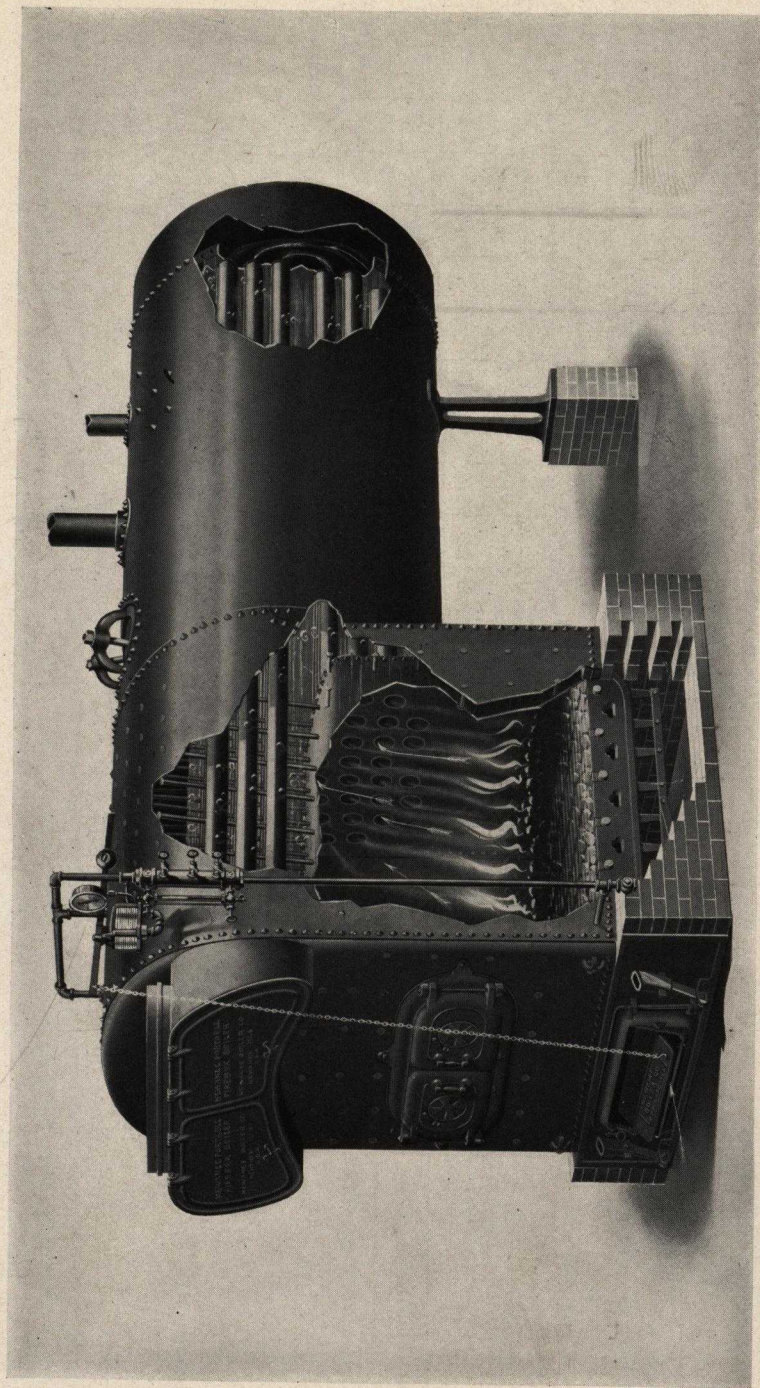
Number of Boiler	315	316	317	318	319	320	321	322	323	324
A—Diameter Boiler.	in. 60	in. 60	in. 66	in. 66	in. 72	in. 72	in. 78	in. 78	in. 84	in. 84
B—Length Boiler	ft. in. 15-3	ft. in. 16-3	ft. in. 15-9	ft. in. 17-9	ft. in. 16-7	ft. in. 17-11	ft. in. 17-10	ft. in. 18-10	ft. in. 20-1	ft. in. 24-1
E—Length Grate.	in. 61	in. 67	in. 61	in. 67	in. 67	in. 73	in. 73	in. 73	in. 79	in. 85
C—Header to Bridge Wall.	in. 14	in. 15	in. 15	in. 16	in. 16	in. 17	in. 17	in. 18	in. 18	in. 19
D—Length Ash-pit.	in. 63	in. 69	in. 63	in. 69	in. 69	in. 75	in. 75	in. 75	in. 81	in. 87
F—Thickness Bridge Wall.	in. 18	in. 18	in. 18	in. 18	in. 18	in. 18	in. 18	in. 18	in. 18	in. 18
G—Bridge Wall to Rear Wall	in. 13	in. 13	in. 13	in. 13	in. 13	in. 13	in. 13	in. 19	in. 19	in. 19
K—Rear Wall to Pier.	in. 57	in. 63	in. 62	in. 80	in. 63	in. 74	in. 72	in. 79	in. 84	in. 126
J—Width Ash-pit	in. 53	in. 53	in. 59	in. 59	in. 65	in. 65	in. 71	in. 71	in. 77	in. 77
M—Width Foundation	in. 79	in. 79	in. 85	in. 85	in. 91	in. 91	in. 97	in. 97	in. 103	in. 103
L—Length Foundation	in. 107	in. 113	in. 107	in. 113	in. 113	in. 119	in. 119	in. 125	in. 131	in. 137
H—Height Boiler.	in. 101	in. 101	in. 107	in. 107	in. 113	in. 113	in. 115	in. 115	in. 121	in. 121
U—Height Supply	in. 103	in. 133	in. 109	in. 109	in. 115	in. 115	in. 117	in. 117	in. 123	in. 123
V—Height Breaching Connection	in. 90	in. 90	in. 93	in. 93	in. 100	in. 100	in. 101	in. 101	in. 109	in. 109
R—Height Water-line.	in. 87	in. 87	in. 90	in. 90	in. 96	in. 96	in. 97	in. 97	in. 105	in. 105
O—Location Safety Valve.	ft. in. 10-11 16	ft. in. 11-6 18	ft. in. 11-0 16	ft. in. 11-9 18	ft. in. 11-7 15	ft. in. 12-2 18	ft. in. 12-2 15	ft. in. 12-9 16	ft. in. 13-8 18	ft. in. 15-0 20
P—Anchor Bolt Centers for Ash-pit Front	in. 11	in. 11	in. 11	in. 11	in. 11	in. 11	in. 11	in. 11	in. 11	in. 11
W—Breaching Connection to Front of Boiler.	in. 9 1/4 12 1/2 46	in. 9 1/4 12 1/2 46	in. 10 1/2 15 50	in. 10 1/2 15 50	in. 11 1/2 17 54	in. 11 1/2 17 54	in. 11 1/2 17 60	in. 11 1/2 17 60	in. 13 20 64	in. 13 20 64
S—Width Breaching Connection	in. 60	in. 60	in. 66	in. 66	in. 72	in. 72	in. 78	in. 78	in. 84	in. 84
T—Length Breaching Connection	in. 60	in. 60	in. 66	in. 66	in. 72	in. 72	in. 78	in. 78	in. 84	in. 84
Y—Anchor Bolt Centers for Ash-pit Front	in. 60	in. 60	in. 66	in. 66	in. 72	in. 72	in. 78	in. 78	in. 84	in. 84
*Number Common Brick	1300	1350	1300	1350	1375	1450	1400	1475	1575	1600
Number Fire Brick	210	215	240	240	255	255	290	315	425	425
Outside Surface to be Covered	sq. ft. 266	sq. ft. 280	sq. ft. 290	sq. ft. 330	sq. ft. 335	sq. ft. 360	sq. ft. 370	sq. ft. 400	sq. ft. 455	sq. ft. 545

*Foundations not included.



KEWANEE BOILER
Portable—for Heating

BOILER No. 414 (and smaller) made with enlarged cylinder as shown above.
 Iron ash-pits (as illustrated) furnished with Boiler No. 409 (and smaller).



KEWANEE BOILER
Portable—for Heating

BOILER No. 415 (and larger) made as shown above. Boiler No. 410 (and larger) set on brick foundation as illustrated.

Price List KEWANEE BOILERS—Portable Type

These Boilers will heat all the radiation shown by their capacity

Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules

Number of Boiler	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424
Capacity, Steam	2500	2900	3500	4000	4500	5000	5500	6000	7000	8000	9500	11000	13000	15000	17500	20000	25000	28000
Capacity, Water	4100	4800	5800	6600	7400	8300	9100	9900	11600	13200	15700	18200	21500	24800	28500	32000	40000	45000
Code, Steam Boiler	Pipe	Plaid	Plank	Plat	Plaza	Plead	Place	Plod	Plain	Plunge	Plush	Poet	Point	Polar	Planet	Pledge	Pluck	Plump
Code, Water Boiler	Prime	Prince	Print	Prism	Proud	Prone	Proxy	Psalm	Pulp	Punch	Pulse	Pure	Purge	Fyre	Fride	Prank	Puff	Pun
List Price for Steam Boilers Maximum Working Pressure of 15 Pounds; Also for Water Boiler Castings and Tools Included	\$1115	\$1200	\$1320	\$1485	\$1595	\$1705	\$2100	\$2300	\$2650	\$2850	\$3400	\$3640	\$4100	\$4400	\$5300	\$5780	\$6870	\$7370
Extra for Steam Trimmings	\$40	\$45	\$45	\$85	\$85	\$85	\$105	\$105	\$105	\$125	\$150	\$160	\$200	\$200	\$220	\$220	\$230	\$230
Approximate Weight, Pounds	6900	7400	8300	9000	9800	10600	13200	14100	15900	17300	20400	22000	24000	25700	28000	31000	37000	40000

Openings in fire-box for coil \$4.00 list per boiler.

Prices for steam boilers for working pressure more than fifteen pounds but not exceeding one hundred pounds will be furnished upon application.

Kewanee Boilers go into the building in one piece. Every joint and seam is firmly riveted at the factory by men who do nothing else and have done nothing else for years and years.

Specifications KEWANEE BOILERS—Portable Type

*Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424
Diameter of Boiler in.	48	48	48	54	54	54	60	60	60	60	66	66	72	72	78	78	84	84
Length of Boiler ft. in.	8-7	9-6	11-1	10-0	11-1	12-1	12-5	13-7	14-4	16-2	15-9	17-4	15-11	17-6	17-11	19-11	20-1	22-1
Width of Fire-box in.	36	36	36	42	42	42	48	48	53	53	59	59	65	65	71	71	77	77
Length of Fire-box in.	38	44	50	44	50	56	56	62	56	62	62	68	74	74	80	80	86	86
Height of Fire-box in.	41½	41½	41½	44	44	44	49	49	49	49	52	52	54½	54½	55	55	58	58
Heating Surface sq. ft.	278	310	373	416	465	515	565	626	676	778	929	1040	1168	1303	1514	1711	2209	2427
Area of Grate sq. ft.	9.6	11.1	12.6	12.9	14.7	16.5	18.8	20.8	20.7	22.9	25.5	28.0	30.8	33.5	36.6	39.6	42.9	46.1
Diameter of Breeching in.	22	22	22	24	24	24	26	26	28	28	30	32	34	34	36	36	40	42
Diameter of Stack in.	20	20	20	22	22	22	24	24	26	26	28	30	32	32	34	34	38	40
Minimum Height of Stack ft.	50	50	55	55	55	60	60	60	65	65	65	70	70	70	80	90	90	100
Diameter of Breeching, Two Boilers in.	30	30	30	34	34	34	38	38	40	40	44	46	50	50	52	52	56	56
Diameter of Stack, Two Boilers in.	28	28	28	31	31	31	34	34	36	36	40	42	46	46	48	48	54	54
Minimum Height of Stack, Two Boilers ft.	60	60	65	65	65	70	70	70	75	75	75	80	80	80	90	100	100	110
Size of Steam Opening in.	6	6	6	6	6	6	7	7	7	7	8	8	8	8	8	8	10	10
Size of Return in.	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve in.	2½	3	3	3½	3½	3½	4	4	4	4½	Two 3½	Two 4	Two 4½	Two 4½	Two 4½	Three 4	Three 4½	Four 4
Height of Water-line in.	71	71	71	76	76	76	83	83	87	87	90	90	96	96	97	97	105	105
Height Floor to Top of Shell in.	84	84	84	89	89	89	98	98	101	101	107	107	113	113	115	115	121	121
Distance Required to Open Rear Flue Doors . . . in.	26	26	26	28	28	28	32	32	32	32	35	35	37	37	40	40	43	43

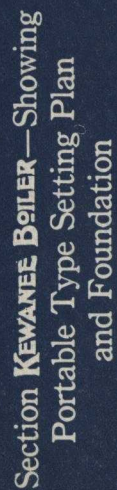
More than 500 U. S. postoffice buildings are heated with Kewanee Boilers.

Setting Measurements **KEWANEE BOILER**—Portable Type

Number of Boiler	407	408	409	410	411	412	413	414
A—Diameter of Boiler in.	48	48	48	54	54	54	60	60
B—Length of Boiler ft. in.	8-7	9-6	11-1	10-0	11-1	12-1	12-5	13-7
C—Length of Fire-box in.	38	44	50	44	50	56	56	62
D—Length of Ash-pit in.	45	51	57					
N—Width of Ash-pit Base in.	45	45	45					
E—Width of Fire-box in.	36	36	36					
F—Ash-pit Base to Pier ft. in.	3-3	3-8	4-9					
G—Height Breaching Connection . . . in.	76	76	76	80	80	80	88	88
H—Height of Boiler in.	84	84	84	89	89	89	98	98
P—Height of Steam Supply in.	85	85	85	90	90	90	99	99
Q—Height of Return in.	19	19	19	19	19	19	20	20
L—Height of Water-line in.	71	71	71	76	76	76	83	83
J—Location of Steam Supply . . . ft. in.	4-8	5-3	6-3	5-6	6-4	8-0	8-3	8-8
K—Location of Safety Valve in.	13	14	18	16	18	13	16	18
W—Center of Breaching Connection to Front of Boiler in.	8	8	8	8	8	8	9 1/4	9 1/4
R—Width Breaching Connection . . in.	10	10	10	10	10	10	12 1/2	12 1/2
S—Length Breaching Connection . . in.	36	36	36	42	42	42	46	46
*Number Common Brick	70	70	70	450	480	510	530	560
Outside Surface to be Covered . . sq. ft.	115	130	150	155	175	185	190	220
†D—Length of Ash-pit in.				47	53	59	59	65
†E—Width of Ash-pit in.				43	43	43	49	49
†F—Ash-pit Wall to Pier ft. in.				3-9	4-4	4-10	5-2	5-10
†M—Center to Center Anch. Bolts . in.				8	8	8	8	8
†T—Center to Center Anch. Bolts . in.				48	48	48	54	54

*Foundations not included.

†These dimensions boilers No. 410 and larger are for brick base. For key letters see setting plan on page 32.



Setting and Foundation Measurements **KEWANEE BOILER**—Portable Type

Number of Boiler	415	416	417	418	419	420	421	422	423	424
A—Diameter of Boiler in.	60	60	66	66	72	72	78	78	84	84
B—Length of Boiler ft. in.	14-4	16-2	15-9	17-4	15-11	17-6	17-11	19-11	20-1	22-1
C—Length of Fire-box in.	56	62	62	68	68	74	74	80	80	86
D—Length of Ash-pit in.	60	66	66	72	72	78	78	84	84	90
E—Width of Ash-pit in.	53	53	59	59	65	65	71	71	77	77
F—Ash-pit Wall to Pier ft. in.	6-7	7-11	7-5	8-5	6-11	7-11	8-4	9-10	9-10	11-4
H—Height of Boiler in.	101	101	107	107	113	113	115	115	121	121
P—Height of Steam Supply in.	103	103	109	109	115	115	117	117	123	123
Q—Height of Breaching Connection in.	90	90	93	93	100	100	101	101	109	109
L—Height of Water-line in.	87	87	90	90	96	96	97	97	105	105
J—Location Steam Supply ft. in.	8-5	9-5	9-4	10-2	9-8	11-1	11-3	12-0	12-6	12-6
K—Location Safety Valve in.	21	27	18	30	18	24	24	30	24	21
W—Center of Breaching Connection to Front of Boiler in.	9 1/4	9 1/4	10 1/2	10 1/2	11 1/2	11 1/2	11 1/2	11 1/2	13	13
R—Width of Breaching Connection in.	12 1/2	12 1/2	15	15	17	17	17	17	20	20
S—Length of Breaching Connection in.	46	46	50	50	54	54	60	60	64	64
M—Center to Center of Anchor Bolts in.	11	11	11	11	11	11	11	11	11	11
T—Center to Center of Anchor Bolts in.	60	60	66	66	72	72	78	78	84	84
*Number of Common Brick	680	710	740	760	790	820	840	885	900	935
Outside Surface to be Covered sq. ft.	250	280	290	310	315	345	385	425	455	505

*Foundation not included.

There is a

KEWANEE

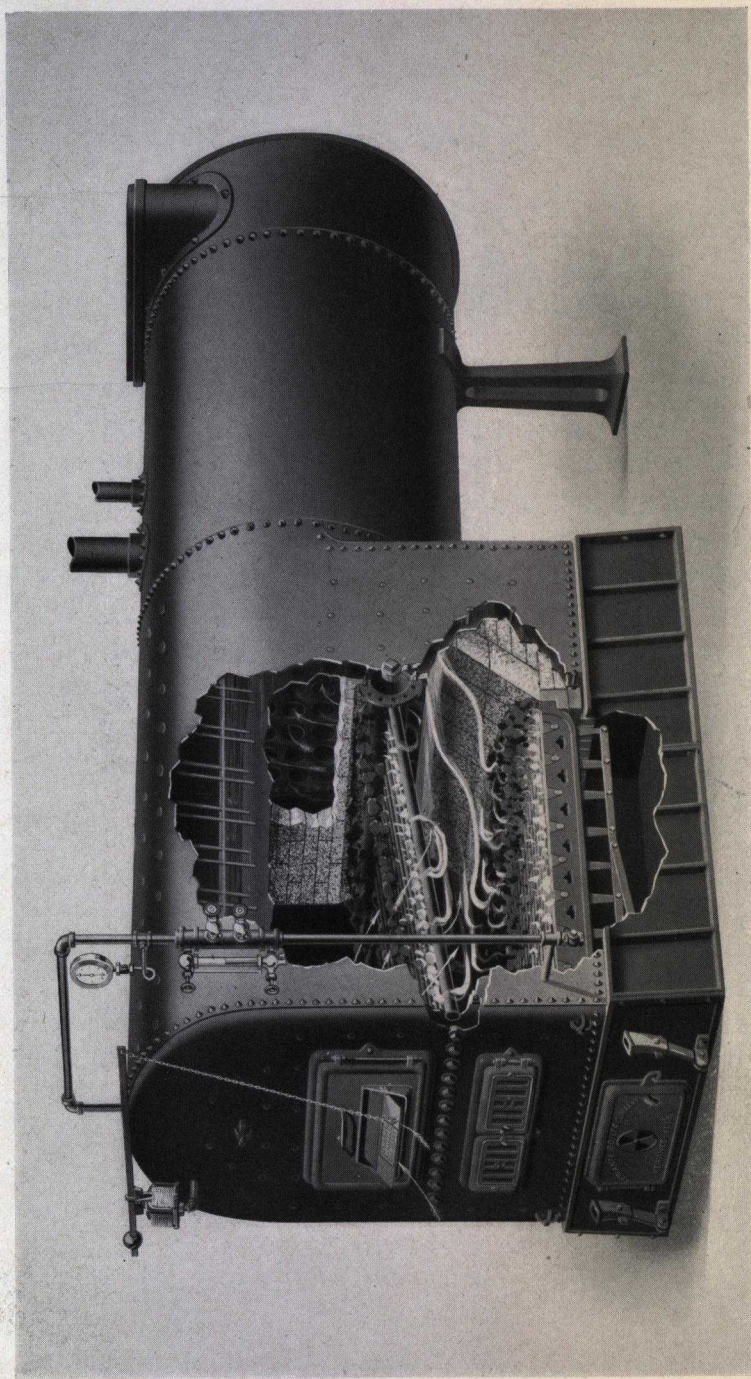
Boiler just the right size for every building from the two apartment building, small school, garage, etc., up to the largest hotel, club, business block, factory, school, church—in fact every type of big building.



KEWANEE

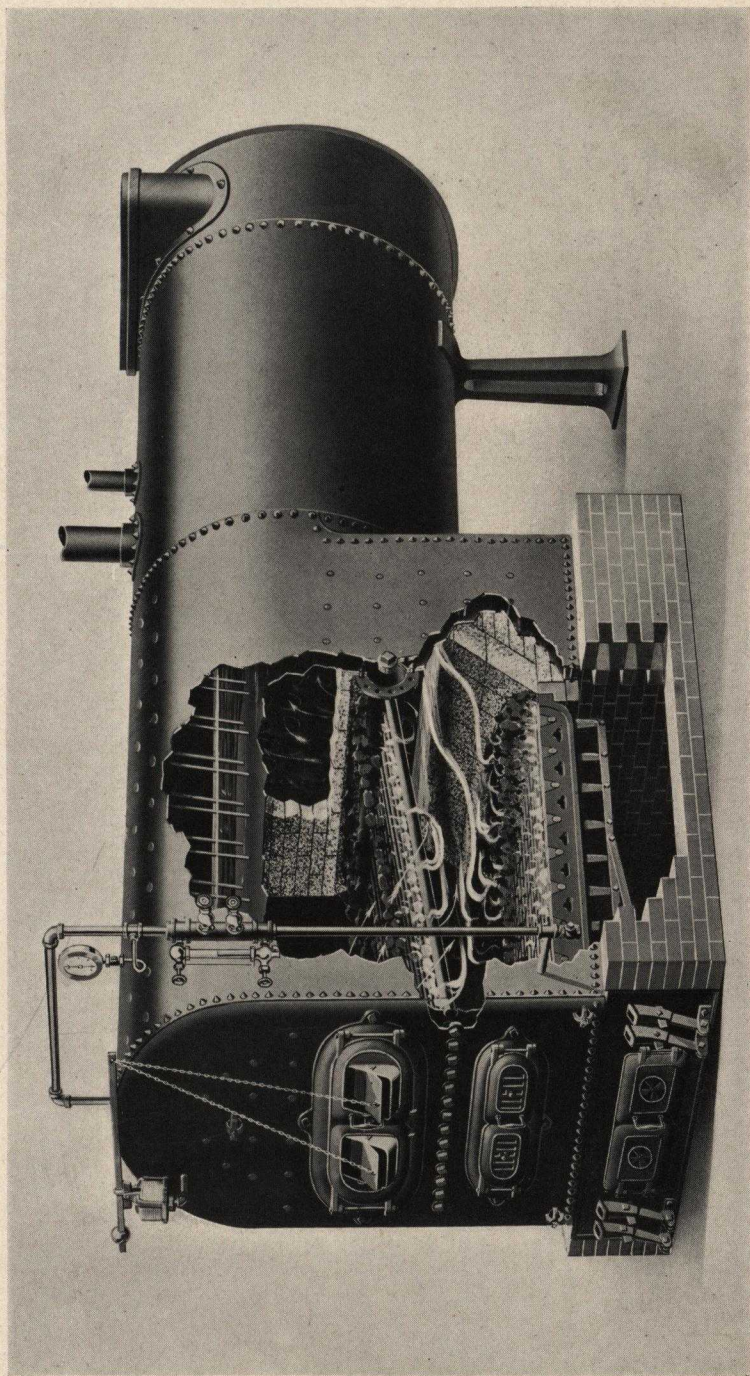
Type K Portable Boiler for Smaller Buildings

WHILE KEWANEE Steel Fire-box Boilers are usually selected by architects and those having to do with the choosing of the heating boiler in the larger buildings, the fact that the Kewanee Boiler Company makes a portable boiler for the 2- 3- and 4-apartment building or any other building requiring small fire-box boiler does not want to be overlooked. The Type K KEWANEE is constructed along the same lines that the larger KEWANEE Boilers are built and it is made in both the smokeless and straight-draft type. The smokeless boiler in this type has a rated capacity of from 1500 to 15,200 square feet in steam and from 2400 to 25,000 square feet in water. The straight-draft boiler has a steam capacity capable of heating from 850 to 13,300 square feet and from 1400 to 21,090 square feet hot water capacity. They will carry all of their rated capacity.



112K and smaller

KEWANEE Portable Smokeless
Type K Boiler—Cast-Iron Base



KEWANEE Portable Smokeless
Type K Boiler—Brick Base

113K and larger

Price List **KEWANEE** Portable Smokeless Boilers Type K These Boilers will heat all the radiation shown by their capacity

*Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	104K	105K	106K	107K	108K	109K	110K	111K	112K	113K	114K	115K	116K	117K	118K	119K	120K
Capacity, Steam . . . sq. ft.	1500	1900	2200	2500	2900	3400	3800	4400	5200	6200	7100	8100	9500	10900	12300	13300	15200
Capacity, Water . . . sq. ft.	2450	3100	3600	4100	4800	5600	6300	7400	8600	10100	11800	13300	15700	18000	20400	21900	25000
Code, Steam Boiler . . .	Habit	Hack	Hades	Hail	Hair	Hale	Half	Hall	Halo	Halt	Ham	Hand	Hank	Hapy	Hard	Hash	Hate
Code, Water Boiler . . .	Hobo	Hock	Hod	Hoe	Hog	Hold	Hole	Holy	Home	Honey	Honor	Hood	Hope	Horde	Horn	Host	Hour
List Price for Steam Boilers Maximum Working Pres- sure of 15 Pounds. Also for Water Boilers. Cast- ings and Tools Included	\$935	\$1000	\$1075	\$1210	\$1290	\$1370	\$1530	\$1660	\$1790	\$2070	\$2280	\$2820	\$3040	\$3475	\$3775	\$4200	\$4500
Extra for Steam Trimmings	\$40	\$40	\$45	\$45	\$45	\$55	\$90	\$90	\$95	\$100	\$115	\$135	\$155	\$165	\$165	\$165	\$200
Approx. Weight, Pounds	5000	5600	6100	6900	7500	8100	9200	9900	10600	12600	14000	16500	18100	20500	22200	24000	26000

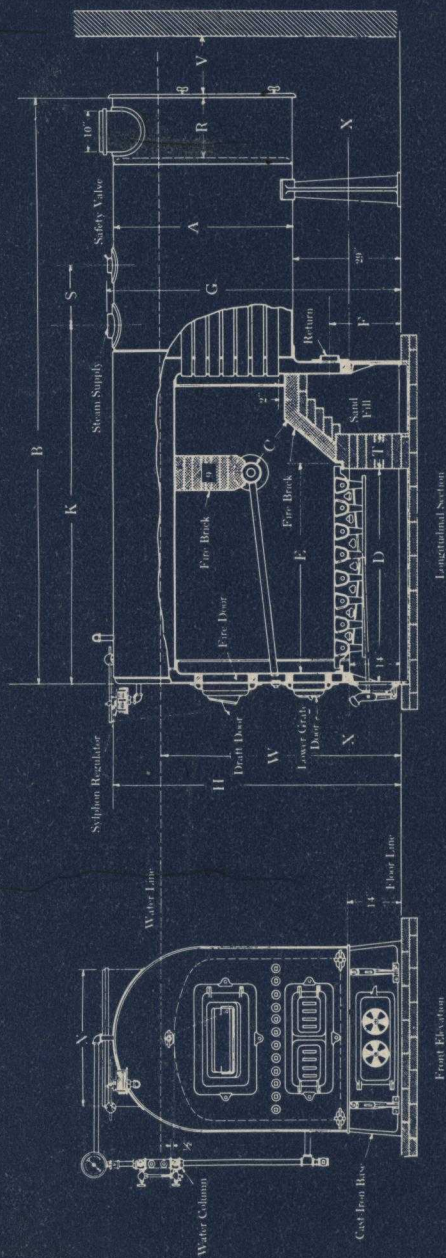
*Kewanee Portable Type K Boilers are constructed in
exactly the same manner as the larger Kewanee Fire-box
Boilers and will heat all the radiation given in their ratings.*

Specifications **KEWANE** Portable Smokeless Boilers Type K

Number of Boiler	104K	105K	106K	107K	108K	109K	110K	111K	112K	113K	114K	115K	116K	117K	118K	119K	120K
Diameter of Boiler . . . in.	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
Length of Boiler Over-all ft. in.	9-11	11-5	12-11	11-2	12-8	14-2	13-8	15-2	16-8	17-1	19-7	19-4	21-10	19-10	21-10	19-10	21-10
Width of Fire-box . . in.	30	30	30	36	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box . . in.	45	51	57	54	60	66	66	72	78	78	84	90	96	90	96	96	102
Heating Surface . . sq. ft.	157	185	220	234	271	308	338	381	425	500	590	677	787	879	987	1090	1230
Area of Upper Grate sq. ft.	5.9	7.2	8.4	8.6	10.1	11.4	11.8	13.2	15.0	17.1	19.1	21.1	23.3	23.5	25.9	28.5	31.3
Diam. of Breeching . . in.	20	20	22	22	22	24	24	27	27	30	30	34	34	36	36	38	38
Diam. of Stack in.	18	18	20	20	20	22	22	24	24	28	28	32	32	34	34	36	36
Minimum H'g't of Stack ft.	40	40	40	45	45	45	45	50	50	55	55	55	55	65	65	65	65
Diameter of Breeching, Two Boilers in.	26	26	28	28	30	32	32	34	34	36	38	42	42	44	45	48	50
Diameter of Stack, Two Boilers in.	24	24	26	26	28	30	30	32	32	34	36	38	38	40	42	44	46
Minimum Height of Stack, Two Boilers . ft.	50	50	50	55	55	55	55	55	55	65	65	65	70	70	75	75	75
Size of Steam Opening . in.	5	6	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return in.	3	3	3	4	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve . in.	2	2½	2½	2½	2½	3	3½	3½	4	4	4½	4½	Two 3½	Two 4	Two 4	Two 4	Two 4½
Height of Water-line . in.	55	55	55	58½	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
Height from Floor to Top of Boiler in.	65	65	65	71	71	71	77	77	77	83	83	93	93	99	99	105	105

For setting plans and other measurements see pages 41 and 43.

Every Kewanee Boiler made is built of Steel.



Section **KEWANEE SMOKELESS BOILER**
Showing Portable Type Setting
Plan and Foundation

Measurements Setting Plans **KEWANE** Portable Smokeless Boilers Type K—Cast-Iron Base

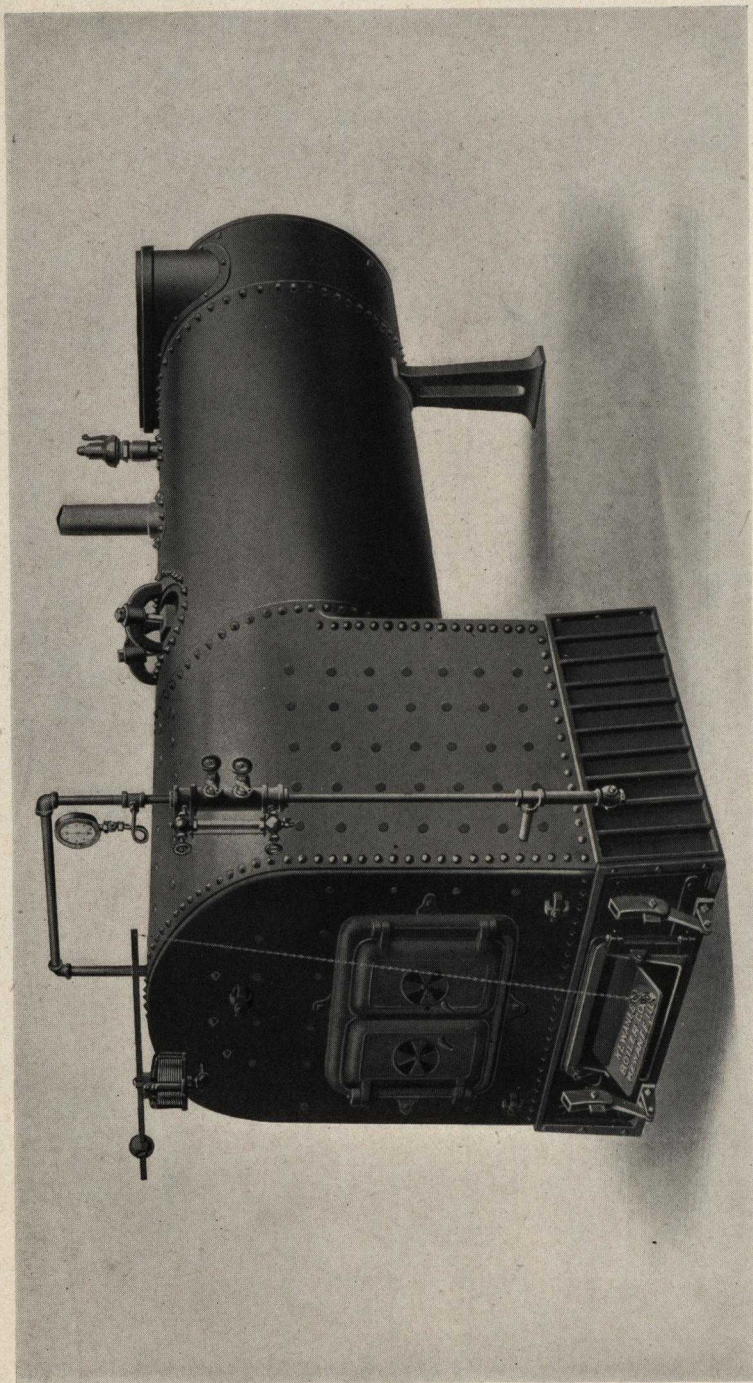
*Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	104K	105K	106K	107K	108K	109K	110K	111K	112K
A—Diameter of Boiler	36	36	36	42	42	42	48	48	48
B—Length of Boiler	9-11	11-5	12-11	11-2	12-8	14-2	13-8	15-2	16-8
C—Header to Bridge Wall	7	8	9	9	10	12	10	11	12½
D—Length of Ash-pit	32	32	44	38	44	50	44	50	56
E—Length of Grate	31	37	43	37	43	49	43	49	55
F—Height of Return	19	19	19	19	19	19	19	19	19
G—Height of Supply	67	67	67	73	73	73	79	79	79
H—Height of Boiler	65	65	65	71	71	71	77	77	77
J—Width of Ash-pit	31	31	31	37	37	37	43	43	43
K—Location of Steam Supply	6-0	7-0	8-0	7-6	8-0	8-9	8-10	9-8	10-4
L—Length of Ash-pit Base	51	57	63	60	66	72	72	78	84
M—Width of Ash-pit Base	40	40	40	46	46	46	54	54	54
N—Length of Breaching Connection	24	24	24	30	30	30	36	36	36
R—Depth of Smoke Box	16	16	16	16	16	16	16	16	16
S—Location of Safety Valve	15	18	18	13	12	13	16	18	18
W—Height of Water-line	55	55	55	58½	58½	58½	61	61	61
T—Thickness of Bridge Wall	9	9	9	9	9	9	13	13	13
Size of Steam Supply	5	6	6	6	6	6	6	6	7
Size of Return	3	3	3	4	4	4	4	4	5
Size of Safety Valve	2	2½	2½	2½	2½	3	3½	3½	4
Number or Fire Brick	85	85	85	115	115	115	155	155	155
Diameter of Breaching	20	20	22	22	22	24	24	27	27
Diameter of Stack	18	18	20	20	20	22	22	24	24
Minimum Height of Stack	40	40	40	45	45	45	45	50	50
Diameter Breaching, Two Boilers				28	30	32	32	34	34
Diameter Stack, Two Boilers				26	28	30	30	32	32
Minimum Height Stack, Two Boilers				55	55	55	55	55	55
Minimum Space Required at Rear "V"	21	21	21	24	24	24	27	27	27
Outside Surface to be Covered	93	102	115	131	148	164	180	199	218

Measurements Setting Plans KEWANE® Portable Smokeless Boilers Type K—Brick Base

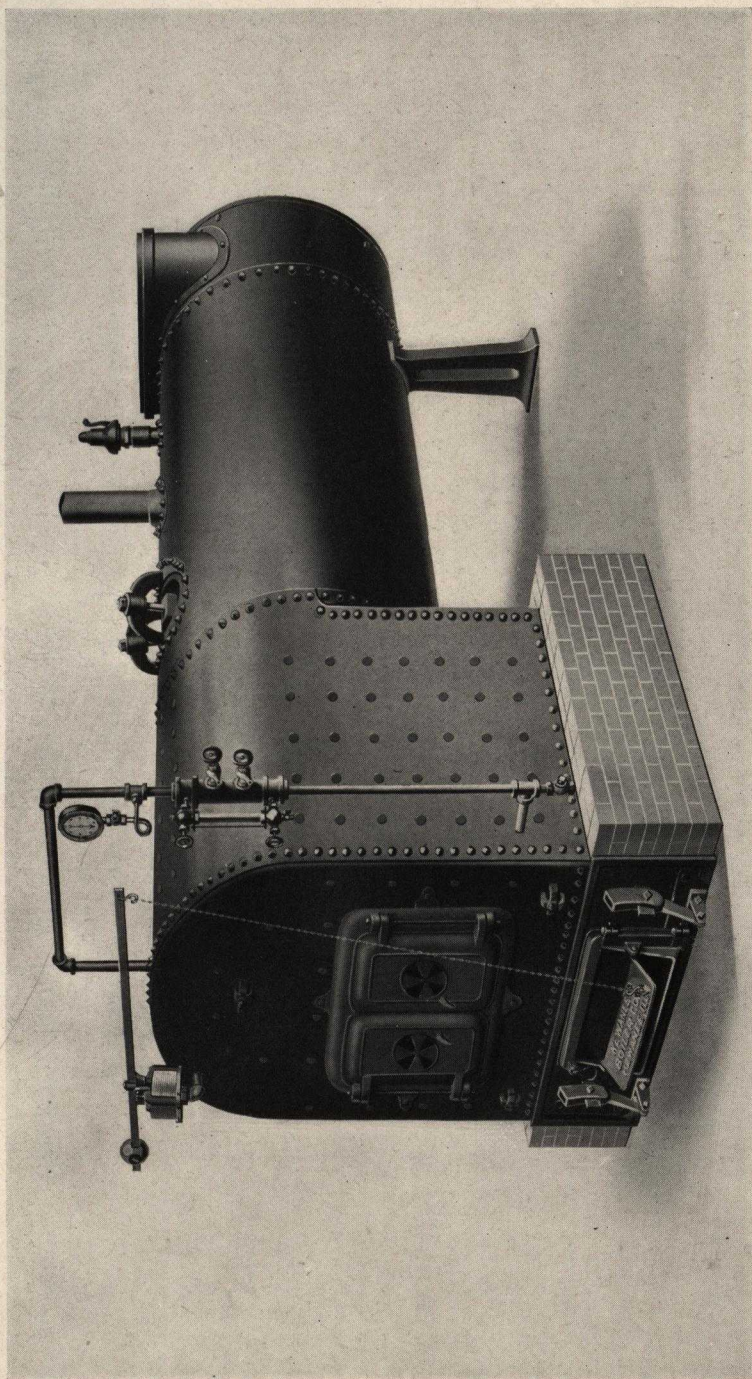
*Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	113K	114K	115K	116K	117K	118K	119K	120K
A—Diameter of Boiler	54 17-1	54 19-7	60 19-4	60 21-10	66 19-10	66 21-10	72 19-10	72 21-10
B—Length of Boiler	in.	ft. in.		15½	14	15½	16	17
C—Header to Bridge Wall	13	63	63	69	63	67	67	75
D—Length of Ash-pit	57	61	61	67	61	67	72	73
E—Length of Grate	55	61	60	60	66	66	72	72
F—Center to Center Bolts in Ash-pit Front	in.	54	60	12	12	12	12	12
G—Bridge Wall to Rear Wall	6	6	12	12	12	12	105	105
H—Height of Boiler	83	83	93	93	99	99	105	105
J—Width of Ash-pit	49	49	54	54	60	60	66	66
K—Location of Steam Supply	in.	11-6	11-10	13-0	12-0	13-0	12-1	13-1
L—Length of Foundation	94	100	106	112	106	112	112	118
M—Width of Foundation	75	75	80	80	86	86	92	92
N—Length of Breeching Connection	46	46	50	50	54	54	68	68
O—Width of Breeching Connection	10	10	12	12	12	12	13	13
Q—Height of Return	19	19	23	23	23	23	23	23
R—Depth of Smoke Box	16	16	18	18	18	18	18	18
S—Location of Safety Valve	21	30	26	30	30	30	20	34
T—Height of Back Stand	29	29	16	16	16	16	16	16
U—Height of Steam Supply	85	85	95	95	101	101	107	107
V—Minimum Space Required at Rear	30	30	33	33	36	36	39	39
W—Height of Water-line	66	66	75	75	80	80	85½	85½
X—Floor Line to Bottom of Cylinder	29	29	33	33	33	33	33	33
Y—Height of Rear Pier	14	14	17	17	17	17	17	17
Z—Height of Ash-pit	14	14	17	17	17	17	17	17
Size of Steam Supply	7	7	7	7	8	8	8	8
Size of Safety Valve	4½	4½	4½	2-3½	2-4	2-4	2-4	2-4½
Size of Return	5	5	5	5	6	6	6	6
Number of Common Brick	955	980	1300	1350	1300	1350	1375	1450
Number of Fire Brick	195	195	210	215	240	240	255	255
Diameter of Stack	28	28	32	32	34	34	36	36
Minimum Height of Stack	55	55	55	55	65	65	65	65
Diameter of Breeching, Two Boilers	ft.	38	42	42	44	45	48	50
Diameter of Stack, Two Boilers	in.	34	38	38	40	42	44	46
Minimum Height Stack, Two Boilers	ft.	65	65	70	70	75	75	75
Outside Surface to be Covered	243	278	311	350	350	384	380	407
Diameter Breeching, One Boiler	in.	30	34	34	36	36	38	38



12K and smaller

KEWANEE Portable Straight-Draft
Type K Boiler—Cast-Iron Base



Kewanee Portable Straight-Draft Type K Boiler—Brick Base

13K and larger

Price List KEWANEE Portable Boiler Type K—Straight Draft

These Boilers will heat all the radiation shown by their capacity

Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules

Number of Boiler	1K	2K	3K	4K	5K	6K	8K	9K	10K	11K	12K	13K	14K	15K	16K	17K	18K	19K	20K
Capacity, Steam sq. ft.	850	1000	1150	1300	1600	1900	2450	2850	3300	3800	4300	5200	6200	7100	8200	9500	10400	11400	13300
Capacity, Water sq. ft.	1400	1600	1900	2200	2600	3100	4100	4700	5500	6300	7000	8600	10100	11800	13700	15700	17300	18800	21900
Code, Steam Boiler.	Dort	Dote	Dock	Deer	Dog	Doge	Doit	Dole	Doll	Dolly	Dolar	Dome	Doze	Doon	Door	Dope	Dost	Dove	Down
Code, Water Boiler.	Drug	Drum	Drag	Dragon	Drain	Drake	Dram	Drank	Drape	Draw	Dray	Dream	Drear	Dress	Droll	Drip	Drive	Drone	Drop
List Price for Steam Boilers, Maximum Working Pressure of 15 Pounds; Also for Water Boilers, Castings and Tools Included	\$550	\$600	\$665	\$725	\$790	\$850	\$1050	\$1135	\$1215	\$1320	\$1425	\$1705	\$1895	\$2355	\$2580	\$2875	\$3225	\$3550	\$3850
Extra for Steam Trim.	\$35	\$35	\$35	\$35	\$35	\$40	\$40	\$50	\$50	\$80	\$80	\$95	\$95	\$125	\$125	\$150	\$160	\$160	\$160
Approx. Weight, Lbs.	2900	3200	3500	3900	4400	4900	6300	6900	7600	8300	9000	11100	12400	15000	16600	17900	19200	21900	23700

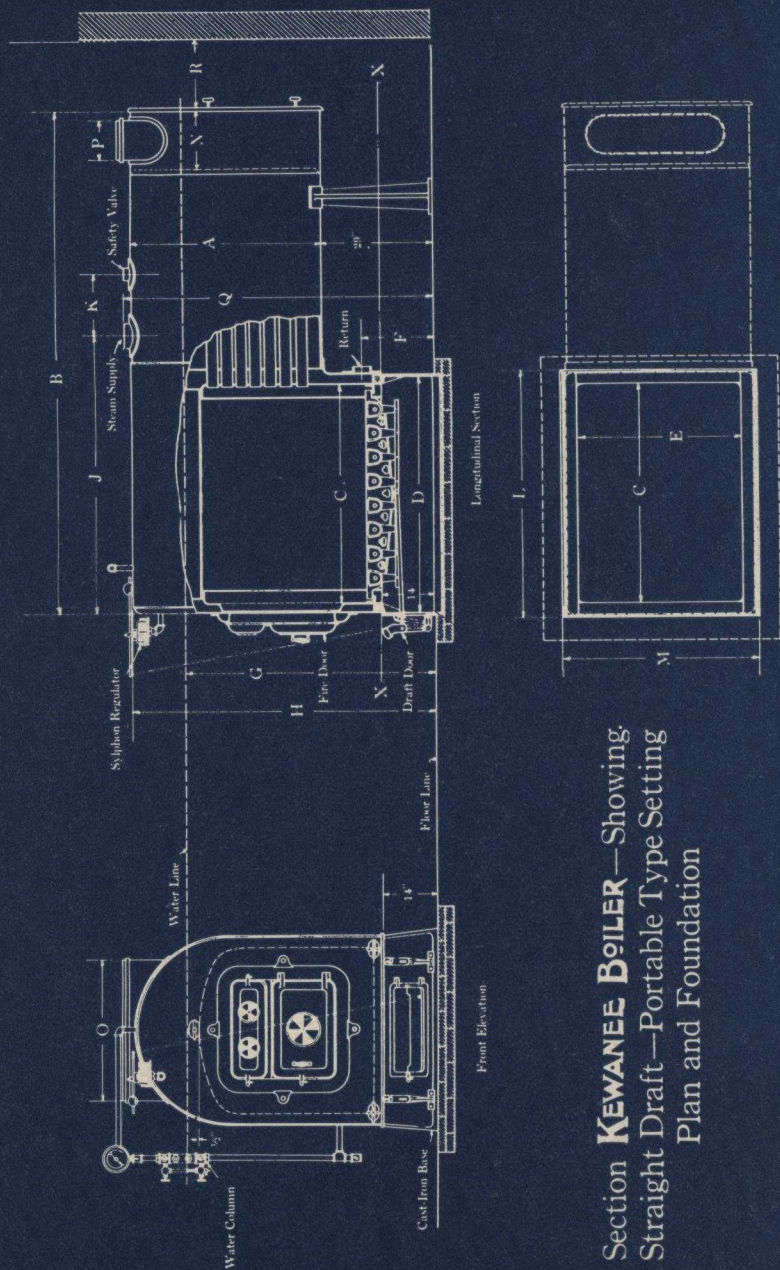
Kewanee Steel Fire-box Boilers are recognized in all parts of this country and Canada as the most dependable heating boilers.

Specifications **KEWANEE** Portable Boiler Type K—Straight Draft

Number of Boiler	1K	2K	3K	4K	5K	6K	8K	9K	10K	11K	12K	13K	14K	15K	16K	17K	18K	19K	20K
Diameter of Boiler in.	30	30	30	36	36	36	42	42	48	48	48	54	54	60	60	66	66	72	72
Length of Boiler Over-all . . . ft. in.	7-10	8-10	9-10	8-10	10-4	11-10	11-4	12-10	11-10	13-4	14-10	15-4	17-10	17-0	19-6	17-6	19-6	17-6	19-6
Width of Fire-box in.	24	24	24	30	30	30	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box in.	26	32	38	32	38	44	44	50	44	50	56	56	62	62	68	62	68	68	74
Height of Fire-box in.	35	35	35	38	38	38	41	41	44	44	44	49	49	54	54	59	59	64	64
Heating Surface sq. ft.	83	93	104	139	164	190	241	275	298	338	378	447	537	603	708	791	896	992	1129
Area of Grate sq. ft.	4.4	5.4	6.4	6.8	8.0	9.3	11.1	12.6	12.9	14.7	16.5	18.8	20.8	22.9	25.1	25.5	28.0	30.8	33.5
Diameter of Breeching in.	12	14	16	16	18	18	20	22	22	24	24	28	28	32	32	32	32	36	36
Diameter of Stack in.	12	12	14	14	16	16	18	20	20	22	22	26	26	30	30	30	30	34	34
Minimum Height of Stack . . . ft.	35	35	35	35	35	40	40	40	40	45	45	45	45	50	50	55	55	55	55
Diam. of Breeching, Two Boilers in.	18	20	22	22	24	24	28	32	32	32	34	36	36	40	40	40	42	44	46
Diam. of Stack, Two Boilers in.	18	18	20	20	22	22	26	28	28	30	32	34	34	36	36	36	38	40	42
Minimum Height of Stack, Two Boilers ft.	40	40	40	40	40	40	45	45	45	45	45	50	55	55	65	65	65	65	65
Size of Steam Opening in.	4	4	5	5	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return in.	2½	2½	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve in.	1½	2	2	2	2	2½	2½	3	3	3½	3½	4	4	4½	4½	4½	4	Two	Two
Height of Water-line in.	52	52	52	55	55	55	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
H'gt from Floor to Top of Boiler in.	59	59	59	63	65	65	71	71	77	77	77	83	83	93	93	99	99	105	105

For setting plans and other measurements see pages 49 and 51.

Many of the first Kewanee Boilers made are still on the job—35 years old.

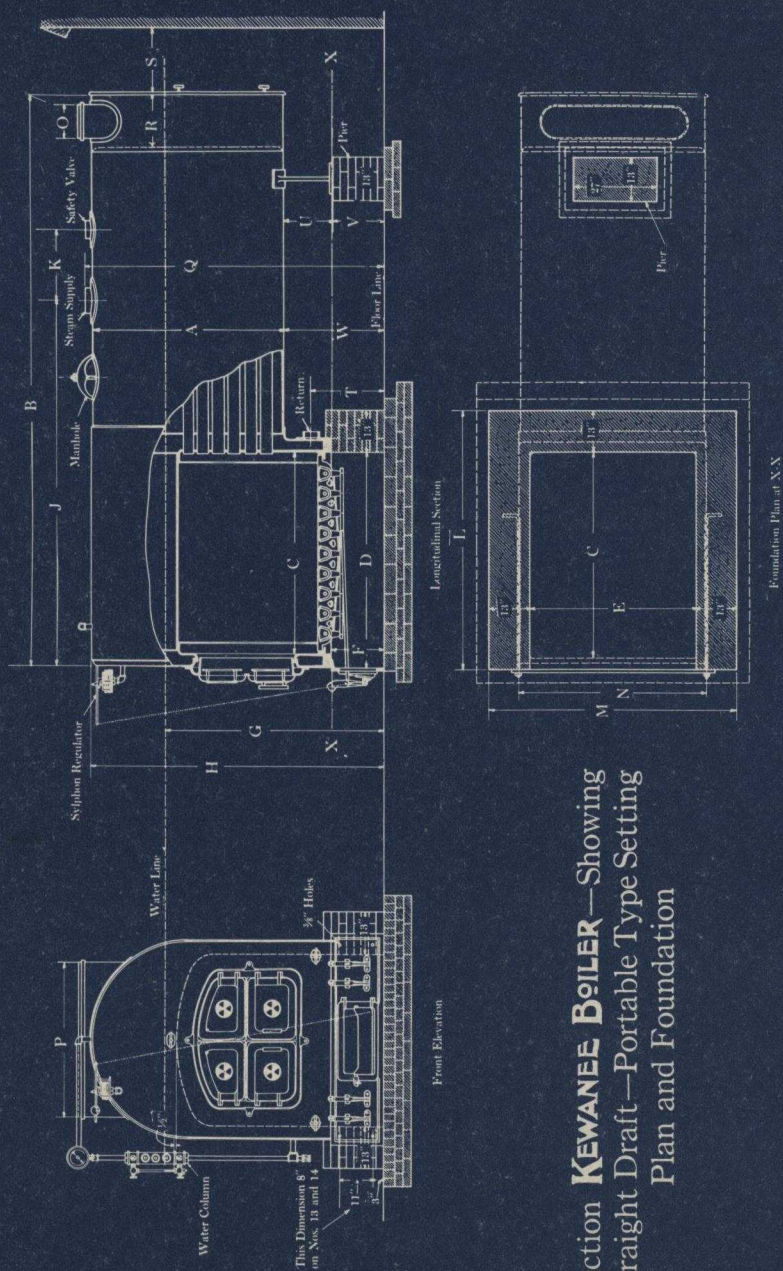


Section **KEWANEE BOILER**—Showing,
Straight Draft—Portable Type Setting
Plan and Foundation

Setting Plans **KEWANE** Portable Boiler Type K—Straight Draft—Cast-Iron Base

*Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	1K	2K	3K	4K	5K	6K	8K	9K	10K	11K	12K
A—Diameter of Boiler	30	30	30	36	36	36	42	42	48	48	48
B—Length of Boiler	7-10	8-10	9-10	8-10	10-4	11-10	11-4	12-10	11-10	13-4	14-10
C—Length of Fire-box	26	32	38	32	38	44	44	50	44	50	56
D—Length of Ash-pit	33	39	45	39	45	51	51	57	51	57	63
E—Width of Ash-pit	24	24	24	30	30	30	36	36	42	42	42
F—Height of Return	18	18	18	19	19	19	19	19	19	19	19
G—Height of Water-line	52	52	52	55	55	55	58½	58½	61	61	61
H—Height of Boiler	59	59	59	65	65	65	71	71	77	77	77
J—Location of Steam Supply	4-0	4-8	5-6	4-11	5-11	6-11	6-8	7-2	7-0	7-10	8-6
K—Location of Safety Valve	12	15	16	15	18	18	13	13	16	18	18
L—Length of Ash-pit Base	34	40	46	40	46	52	52	58	52	58	64
M—Width of Ash-pit Base	34	34	34	40	40	40	46	46	52	52	52
N—Depth of Rear Smoke Box	16	16	16	16	16	16	16	16	16	16	16
O—Length of Breaching Connection	16	16	16	24	24	24	30	30	36	36	36
P—Width of Breaching Connection	8	8	8	10	10	10	10	10	10	10	10
Q—Height of Steam Supply	61	61	61	67	67	67	73	73	79	79	79
R—Minimum Space Required at Rear	18	18	18	21	21	21	24	24	27	27	27
Size of Steam Supply	4	4	5	5	6	6	6	6	6	6	7
Size of Safety Valve	1½	2	2	2	2	2½	2½	3	3	3½	3½
Size of Return	2½	2½	3	3	3	3	4	4	4	4	5
Diameter of Breaching	12	14	16	16	18	18	20	22	22	24	24
Diameter of Stack	12	12	14	14	16	16	18	20	20	22	22
Minimum Height of Stack	35	35	35	35	35	40	40	40	40	45	45
Diameter Breaching, Two Boilers							28	32	32	32	34
Diameter Stack, Two Boilers							26	28	28	30	32
Minimum Height Stack, Two Boilers							45	45	45	45	45
Outside Surface to be Covered	68	77	85	91	106	120	133	149	157	177	197



Setting Plans **KEWANE** Portable Boiler Type K—Straight Draft—Brick Base

*Built in accordance with American Society
Mechanical Engineers Code of Boiler Rules*

Number of Boiler	13K	14K	15K	16K	17K	18K	19K	20K
A—Diameter of Boiler	54 in.	54 17-10 in.	60 17-0 in.	60 19-6 in.	66 17-6 in.	66 19-6 in.	72 17-6 in.	72 19-6 in.
B—Length of Boiler	15-4 ft.							
C—Length of Grate	56 in.	65 in.	65 in.	68 in.	65 in.	68 in.	68 in.	74 in.
D—Length of Ash-pit	59 in.	49 in.	54 in.	51 in.	60 in.	60 in.	66 in.	66 in.
E—Width of Ash-pit	49 in.	14 in.	17 in.	17 in.	17 in.	17 in.	17 in.	17 in.
F—Height of Ash-pit	14 in.	66 in.	75 in.	75 in.	80 in.	80 in.	85½ in.	85½ in.
G—Height of Water-line	66 in.	83 in.	93 in.	93 in.	99 in.	99 in.	105 in.	105 in.
H—Height of Boiler	83 in.	9-8 ft.	9-6 ft.	10-8 ft.	26¾ ft.	30 ft.	20 ft.	34 ft.
J—Location of Steam Supply	9-2 ft.							
K—Location of Safety Valve	21 in.	30 in.	26 in.	30 in.	26¾ in.	30 in.	20 in.	34 in.
L—Length of Foundation	72 in.	78 in.	78 in.	84 in.	78 in.	84 in.	84 in.	90 in.
M—Width of Foundation	75 in.	54 in.	60 in.	60 in.	66 in.	66 in.	72 in.	72 in.
N—Center to Center Bolts in Ash-pit Front	10 in.	10 in.	12 in.	12 in.	12 in.	12 in.	13 in.	13 in.
O—Width of Breeching Connection	46 in.	46 in.	50 in.	50 in.	54 in.	54 in.	68 in.	68 in.
P—Length of Breeching Connection	85 in.	85 in.	95 in.	95 in.	101 in.	101 in.	107 in.	107 in.
Q—Height of Steam Supply	16 in.	16 in.	18 in.	18 in.	18 in.	18 in.	18 in.	18 in.
R—Depth of Smoke Box	30 in.	30 in.	33 in.	33 in.	36 in.	36 in.	39 in.	39 in.
S—Minimum Space Required at Rear	19 in.	19 in.	23 in.	23 in.	23 in.	23 in.	23 in.	23 in.
T—Height of Return	29 in.	29 in.	16 in.	16 in.	16 in.	16 in.	16 in.	16 in.
U—Height of Back Stand	14 in.	14 in.	17 in.	17 in.	17 in.	17 in.	17 in.	17 in.
V—Height of Rear Pier	29 in.	29 in.	33 in.	33 in.	33 in.	33 in.	33 in.	33 in.
W—Floor Line to Bottom of Cylinder	7 in.	7 in.	7 in.	7 in.	8 in.	8 in.	8 in.	8 in.
Size of Steam Supply	4 in.	4 in.	4½ in.	4½ in.	2-3½ in.	2-4 in.	2-4 in.	2-4 in.
Size of Safety Valve	5 in.	5 in.	5 in.	5 in.	6 in.	6 in.	6 in.	6 in.
Size of Return	460 sq. ft.	490 sq. ft.	710 sq. ft.	740 sq. ft.	740 sq. ft.	760 sq. ft.	790 sq. ft.	820 sq. ft.
Number of Common Brick	28 in.	28 in.	32 in.	32 in.	32 in.	32 in.	36 in.	36 in.
Diameter of Breeching	26 in.	26 in.	30 in.	30 in.	30 in.	30 in.	34 in.	34 in.
Diameter of Stack	45 ft.	45 ft.	50 ft.	50 ft.	55 ft.	55 ft.	55 ft.	55 ft.
Minimum Height of Stack	36 in.	36 in.	40 in.	40 in.	40 in.	40 in.	44 in.	46 in.
Diameter Breeching, Two Boilers	34 in.	34 in.	36 in.	36 in.	36 in.	38 in.	40 in.	42 in.
Diameter Stack, Two Boilers	50 ft.	55 ft.	55 ft.	65 ft.	65 ft.	65 ft.	65 ft.	65 ft.
Minimum Height Stack, Two Boilers	200 sq. ft.	235 sq. ft.	275 sq. ft.	314 sq. ft.	311 sq. ft.	345 sq. ft.	338 sq. ft.	366 sq. ft.
Outside Surface to be Covered								

